CHAPTER 1

KC-130FRT PILOT
(INTERIM APPROVED 23 SEP 04)

CHAPTER 1

KC-130FRT PILOT

100. MARINE AERIAL REFUELING SQUADRON (KC-130FRT) UNIT CORE COMPETENCY

UNIT TEMPLATE

NOTE

The capabilities defined and described in the core capability and unit template sections are provided to ensure each like squadron maintains a common base of training and depth of capabilities. When resources permit, and when in the judgment of the commander additional training would significantly increase the unit's war fighting capability, training to a level above these base capabilities is permitted. It is incumbent upon and expected of the commander to balance any increase in the depth of core capabilities against the overall health and readiness of his unit, while staying within resource constraints.

1. VMGR Mission. Support the MAGTF Commander by providing aerial refueling and assault support, day or night under all weather conditions during expeditionary, joint, or combined operations.

2. Mission Essential Task List (METL)

a. (UJTL TA 1.1.1) Conduct Tactical Airlift
- Conduct assault support transport.

b. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
- Maintain the capability to deploy and operate from advanced bases, expeditionary airfields and forward operating bases.
- Perform organizational maintenance on assigned aircraft.

c. (UJTL TA 1.2.2) Conduct Airborne Operations
- Provide air delivered assault support transport of combat troops, equipment and supplies.
- Provide support for casualty evacuation operations.
- Maintain self-defense capability from ground-to-air and air-to-air threats.

d. (UJTL TA 4.2) Distribute Supplies and Provide Transport Services
- Conduct aerial re-supply.
- Provide support for mobile Forward Arming and Refueling Points (FARPS).
- Provide support for Rapid Ground Refueling (RGR) of aircraft and vehicles.

e. (UJTL TA 4.2.3) Conduct Air Refueling
- Provide Tactical and Long Range Aerial Refueling.

f. (UJTL TA 5) Exercise Command and Control
- Provide Airborne Platform for the Airborne DASC Command Post.

g. (UJTL TA 6.2) Conduct Joint Personnel Recovery
- Conduct Tactical Recovery of Aircraft and Personnel (TRAP) operations.
- Augment local Search and Rescue (SAR) assets

h. (UJTL TA 6.4) Conduct Noncombatant Evacuation
- Provide support for evacuation operations.

3. Table of Organization. Refer to Table of Organization 8820 and 8821 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for KC-130F/R/T units. As of this publication date, KC-130F/R/T units are authorized:

Squadron
12 Aircraft
42 Pilots [26 TPC/16 CP (T2P or T3P)]
23 TSOs
25 Flight Engineers
24 Loadmasters
24 Flight Mechanics

Detachment
6 Aircraft
19 Pilots [11 TPC/8 CP (T2P or T3P)]
11 TSOs
12 Flight Engineers
12 Loadmasters
12 Flight Mechanics

4. Core Capability. A core capable squadron is able to sustain 9 sorties on a daily basis during contingency/combat operations. The above sortie rates are based on 3.0 hour average sortie duration and assumes $\geq$ 70 percent FMC aircraft and $\geq$ 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main or expeditionary base.

5. METL/Core Skill Matrix. KC-130FRT core skills directly support the METL as follows:

	KC-130FRT CORE SKILL										CORE PLUS	
METL	AR	TACNAV	FORM	RGR	LRNAV	THRX (I)	THRX (R)	ALZ	NSQ	AD	LRAR	DEFTAC
A. Conduct Tactical Airlift		X	X		X	X	X	X	X			X
B. Conduct Sea and Air Deployment Operations			X		X	X	X	X	X		X	X
C. Conduct Airborne Operations		X	X		X	X	X		X	X		X
D. Distribute Supplies and Provide Transport Services		X		X	X	X	X	X	X	X	X	X
E. Conduct Air Refueling	X	X	X		X	X	X		X		X	X
F. Exercise Command and Control					X	X	X		X			X
G. Conduct Joint Personnel Recovery	X	X	X	X	X	X	X	X	X	X	X	X
H. Conduct Noncombatant Evacuation	X	X	X	X	X	X	X	X	X		X	X

6. KC-130F/R/T Core Model Minimum Requirements (CMMR). Squadron core competency reflects the minimum level of competency a squadron must achieve to perform its core capability. Squadron core competency is measured in terms of minimum Core Skill Proficiency (CSP) and minimum numbers of flight leaders per paragraphs a and b below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of crews who are proficient in each core skill (Unit CSP). In order to be considered proficient in a core skill (individual CSP), a crewmember must attain and maintain proficiency in core skill events, as delineated in paragraphs (1) and (2) below.

* NOTE: DEFTAC and Long Range AAR (LRAR) are core plus skills. Proficiency in DEFTAC and LRAR is not required to obtain unit CSP and will not contribute to unit T-level readiness. Below are KC-130 community recommended unit/individual CSP standards for these skills.

KC-130FRT Unit CSP Requirements							
CORE SKILL *CORE PLUS	Pilot	Copilot	TSO	FE	LM	FM	Crews
AR	14	14	14	14	14	14	14
TACNAV	9	9	9	9	9	9	9
FORM	8	8		8			8
LRNAV	12	12	12	12	12	12	12
THRX(I)	6	6	6	6	6	6	6
THRX(R)	8		4	4			4
ALZ	9	9	9	9	9	9	9
RGR	6	6		6	6	6	6
NSQ	9	9	9	9	9	9	9
AD	4	4	4	4	8	4	4
**CPL					18		18
*LRAR	2		2				1
*DEFTAC	2/2		2	2	2	2	2

KC-130FRT Unit CSP Requirements Detachment							
CORE SKILL	Pilot	Copilot	TSO	FE	LM	FM	Crews
AR	7	7	7	7	7	7	7
TACNAV	5	5	5	5	5	5	5
FORM	4	4		4			4
LRNAV	6	6	6	6	6	6	6
THRX(I)	3	3	3	3	3	3	3
THRX(R)	4		2	2			2
ALZ	5	5	5	5	5	5	5
RGR	3	3	3	3	3	3	3
NSQ	5	5	5	5	5	5	5
AD	2	2	2	2	4	2	2
**CPL					9		9
LRAR	1		1				1
DEFTAC	4		2	2	2	2	2

** CPL is the Cargo and Passenger Loading core skill that applies to loadmasters only and is not included in the METL Core Skill Matrix.

(1) Events Required to Attain Individual CSP. To initially attain CSP, a crewmember must successfully complete all of the T&R events listed in the chart below for that core skill:

KC-130 Copilot Attain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	LRAR	DEFTAC
T&R event requirements to attain competency	210* 211 212* 213	274	270 271* 272	240 241*	230 231* 232	250	220 222 223* 224	260* 261		203* 204 205* 222 223* 224		

Notes:
1. Some events are duplicated in more than one category, but not in the overall total.
2. "*" Denotes R-coded events
3. Underlined events are simulator events.

KC-130 Pilot Attain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	LRAR	DEFTAC
T&R event requirements to attain competency	311* 312* 313	274	370* 371 372	340* 341	330* 331 332	250	320 321 322* 323 324*	260*	360 361*	323* 324* 303	311 312 333 493	462 463 464
Notes: 1. Some events are duplicated in more than one category, but not in the overall total. 2. "*" Denotes R-coded events. 3. Underlined events are simulator events.												

KC-130 Flight Engineer Attain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	DEFTAC
T&R event requirements to attain competency	210 211* 212 213* 313	274*	271* 272 273	241*	231*	250*	220* 223 224 321	260*	360	204* 205*	461 462
Notes: 1. Some events are duplicated in more than one category but not in the overall total. 2. "*" Denotes a Refresher Flight Engineer or an individual who needs to regain qualification(s).											

KC-130 Loadmaster Attain	RW/FW AR	RGR	ALZ	AD	CPL	LRNAV	TACNAV	THRX(I)	NS	DETFAC
T&R event requirements to attain competency	210 211 213	273 274	271 272 370	241 340	215 216 217 218	250	220 223 322	261	204 213 223 272	462

KC-130 TSO Attain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	LRAR	DEFTAC
T&R event requirements to attain competency	210 212 213		270 271 370	240 241 242 341		250	220 221 222 223 321 322 324	260 261	360 361	201 204 205	410 411	462

KC-130 Flight Mechanic Attain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	DEFTAC
T&R event requirements to attain competency	210 211* 212 213* 313	274*	271* 272	241*	231*	250*	220* 223 224 321	260*	360	203* 204*	461 462
Notes: 1. Some events are duplicated in more than one category but not in the overall total. 2. "*" Denotes a Refresher Flight Mechanic or someone who needs to regain qualification(s).											

(2) Events Required to Maintain Individual CSP. To maintain CSP, a crewmember must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

KC-130 Copilot Maintain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	LRAR	DEFTAC
T&R event requirements to maintain competency	210 212	274	271	241	231	250	220 224	260		204 205		

KC-130 Pilot Maintain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	LRAR	DEFTAC
T&R event requirements to maintain competency	311 312	274	370	340	330	250	322 324	260	361	204 205 303	311 312 333 493	322 464

KC-130 Flight Engineer Maintain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	DEFTAC
T&R event requirements to maintain competency	211 212	274	271	241	231	250	224 321	261	360	204 205	462

KC-130 Loadmaster Maintain	RW/FW AR	RGR	ALZ	AD	CPL	LRNAV	TACNAV	THRXI	NS	DETFAC
T&R event requirements to maintain competency	213	274	272	241 340	215 216 217 218	250	223	261	213 223 272	462

KC-130 TSO Maintain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	LRAR	DEFTAC
T&R event requirements to maintain competency	210 213		271 370	241 242 341		250	223 322 324	261	361	204 205	411	462

KC-130 Flight Mechanic Maintain	RW/FW AR	RGR	ALZ EAF	AD	FORM	LONG RANGE NAV	TACNAV	THRX(I)	THRX(R)	NS	DEFTAC
T&R event requirements to maintain competency	211 213	274	271	241	231	250	224 321	260	360	204 205	461 462

b. Minimum Combat Leader Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of aircrew with the listed flight leadership designations.

	Squadron	
DESIGNATION	Pilot	Tactical Systems Operator
TPC	18	
SEC LDR	8	
DIV LDR	4	
TAC RAC	8	
RC		2
STRAT RAC	2	

	Detachment	
DESIGNATION	Pilots	Tactical Systems Operator
TPC	9	
SEC LDR	4	
DIV LDR	2	
TAC RAC	4	
RC		1
STRAT RAC	1	

7. Qualifications And Designations Table. The table below delineates T&R events required to be completed to attain initial qualifications, re-qualifications, and designations. All stage lectures, briefs, squadron training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in individual NATOPS and APR/MPR jackets. Loss of proficiency in all qualification events of a core skill causes the associated

qualification to be lost. Regaining a qualification requires completing all R coded syllabus events associated with that qualification.

Qualification (TRACKING CODE)	Initial Event Qualification Requirements.
NSQ (686)	SNS-203, NS-204, NS-205, TACNAV-223, TACNAV-224
Instrument (681)	IAW OPNAVINST 3710.7_ and an annual qualification letter signed by the commanding officer.
Special Instrument(682)	IAW OPNAVINST 3710.7_ and an annual qualification letter signed by the commanding officer.
Right Seat LAT (620)	TACNAV-221.
LAT (621)	RQD-620, TACNAV-322
DEFTAC (661)	DEFTAC-464
T3P NATOPS Check (683)	Core Introduction Phase Complete.
T2P NATOPS Check (684)	RQD-683, Core Basic Phase Complete.
TPC NATOPS Check (685)	RQD-684, RQD-686, RQD-600 to 602 TPC Proficiency Review, RQD-603 TPC Simulator Upgrade Syllabus, RQD-604 TPC Route Check, Core Basic and Advanced Phases complete.

Designation (TRACKING CODE)	Designation Requirements.
FAM/INST I(FRS) (688)	SFAM-500/501, FAM-502, INST-503/504 and a designation letter signed by the commanding officer.
AR I (FRS) (689)	AR-510, AR-511 and a designation letter signed by the commanding officer.
TACNAV I (FRS) (690)	TACNAV-520, TACNAV-521 and a designation letter signed by the commanding officer.
FORM I (FRS) (691)	FORM-530, FORM-531 and a designation letter signed by the commanding officer.
AD I (FRS) (692)	AD-540, AD-541 and a designation letter signed by the commanding officer.
ALZ I (FRS) (693)	ALZ-570, ALZ-571 and a designation letter signed by the commanding officer.
Section Leader (631)	RQD-630 and a designation letter signed by the commanding officer.
Division Leader (633)	RQD-636, RQD-631, RQD-632 and a designation letter signed by the commanding officer.
Tactical RAC (636)	RQD-631 and a designation letter signed by the commanding officer.
Strategic RAC (637)	AR-493, RQD-633, RQD-636 and a designation letter signed by the commanding officer.
PMCFP (687)	RQD-685 and a designation letter signed by the commanding officer.
T&R I (694)	TR-580 and a designation letter signed by the commanding officer.
NI/ANI (695)	SNI-590, NI-591 and a designation letter signed by the commanding officer. NI requires certification by the model manager.
LATI (696)	See MAWTS-1 Course Catalog
DEFTACI (697)	See MAWTS-1 Course Catalog
NSI (698)	See MAWTS-1 Course Catalog
WTI (699)	See MAWTS-1 Course Catalog

a. Instructor Requirements. A squadron should possess the following numbers of aircrew with the listed instructor designations IAW the KC-130 T&R and MCO 3500.12C (WTTP).

	KC-130 Squadron			
INSTRUCTOR DESIGNATION	Pilots	TSOs	Flight Engineers	Loadmasters
LATI	4			
ANI	6	4	6	4
WTI	2	2	2	2
DEFTACI	1			
NSI	3	3	3	3
T&RI	10	6	10	8

	KC-130 Detachment			
INSTRUCTOR DESIGNATION	Pilots	TSOs	Flight Engineers	Loadmasters
LATI	2			
ANI	3	2	3	2
WTI	1	1	1	1
DEFTACI	1			
NSI	1	1	1	1
T&RI	5	3	5	4

8. Definitions

a. Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. Loss of currency does not affect a loss of Core Skill Proficiency (CSP). For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for individual type mission profiles can be found in the Aviation T&R Program Manual.

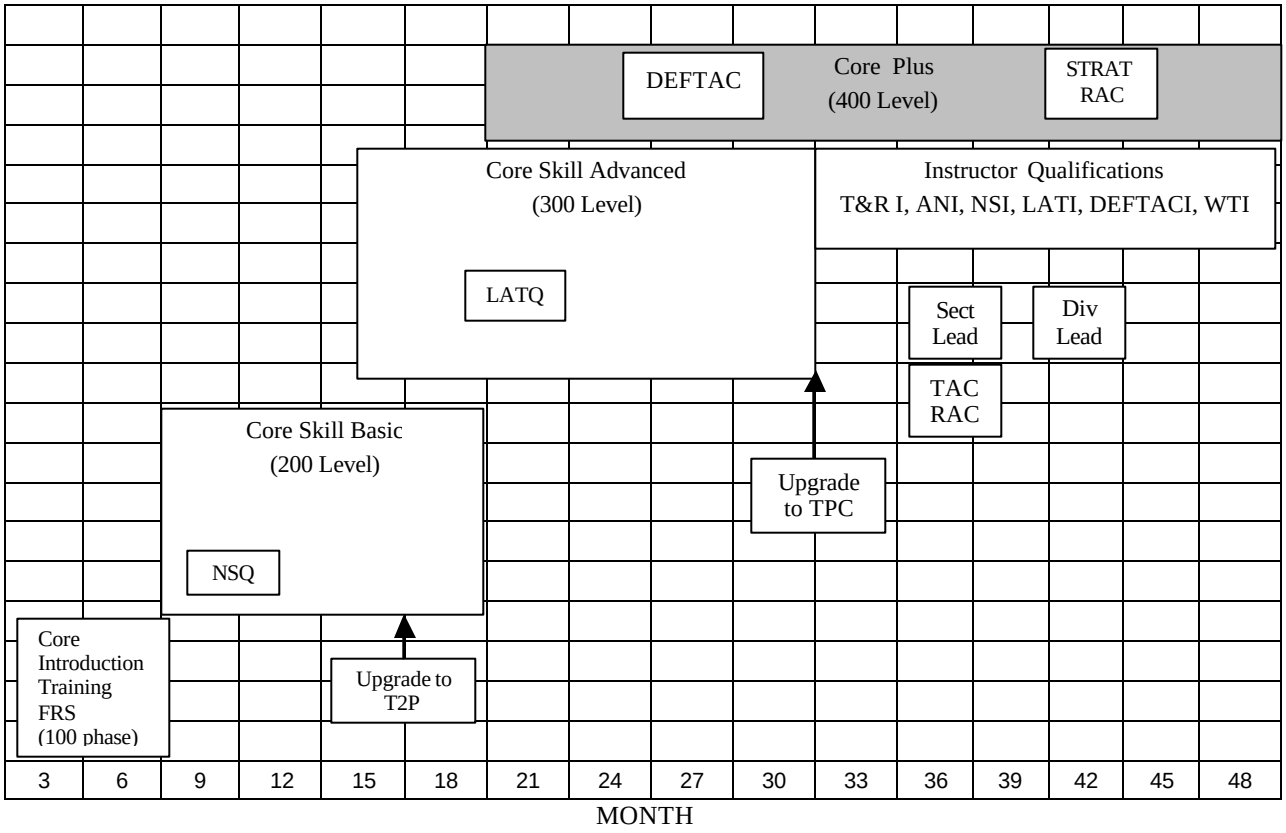
b. Proficiency. Proficiency is a measure of achievement of a specific skill. Re-fly factors establish the maximum time between demonstration of those particular skills. CSP is a measurement of “demonstrated proficiency.” If an aircrew exceeds the re-fly factor for a particular event, the individual loses CSP for that particular event. To regain proficiency, an individual shall complete the delinquent event with a proficient crewman. If an entire unit loses proficiency, unit instructors shall regain proficiency by completing an event with instructors from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. If a unit has only one instructor and cannot complete the event with an instructor from another unit, he shall regain proficiency with another aircraft commander or as designated by his commanding officer.

c. Qualification. A qualification is a status assigned to personnel based on demonstration of proficiency in a specific skill. Specific criteria to achieve qualifications shall be delineated in individual T&R chapters. Upon successful completion of qualification criteria, commanding officers shall issue an appropriate qualification letter for inclusion in the NATOPS jacket and APR/MPR. Aircrew do not lose a qualification as a function of re-fly factor for individual events. Loss of proficiency (delinquent re-fly

factor) for all associated qualification core skill events constitutes loss of that qualification. Re-qualification requires demonstration of proficiency. Specific re-qualification criteria shall be delineated in individual T&R chapters.

d. Designation. A designation is a status assigned to an individual based on leadership ability. A designation is a command specific, one-time occurrence and remains in effect until removed for cause. Specific designation requirements shall be delineated in individual T&R chapters. Commanders shall issue a designation letter to the individual upon the occasion of original designation, with appropriate copies for inclusion in the NATOPS jacket and APR.

9. KC-130FRT Pilot Progression Model. The training progression model below provides recommended core skill, qualification, and designation attainment timelines for the average pilot.



101. PROGRAM OF INSTRUCTION (POI) FOR BASIC, TRANSITION, AND CONVERSION PILOT

	WEEKS	COURSE	PERFORMING ACTIVITY
Track 1	1-7	USAF C-130 Copilot Initial Qualification (CIQ)	314th AW/VMGRT-253
	8-28	Core Skill Introduction Training	VMGRT-253
Track 2	1-4	USAF C-130 CIQ Alternative Course	VMGRT-253
	5-25	Core Skill Introduction Training	VMGRT-253
	25/29-81	Core Basic Training	Tactical Squadron
	82-136	Core Advanced Training	Tactical Squadron
	137-208	Core Plus Training	Tactical Squadron

102. POI FOR SERIES CONVERSION PILOT

WEEKS	COURSE	PERFORMING ACTIVITY
1-8	Core Skill Introduction Training	FRS/Tactical Squadron
9-26	Core Basic Training	Tactical Squadron
27-39	Core Advanced Training	Tactical Squadron
40-52	Core Plus Training	Tactical Squadron

103. POI FOR REFRESHER PILOT

WEEKS	COURSE	PERFORMING ACTIVITY
1-4	Core Introduction	FRS/Tactical Squadron
5-26	Core Basic Training	Tactical Squadron
27-39	Core Advanced Training	Tactical Squadron
40-52	Core Plus Training	Tactical Squadron

104. POI FOR SQUADRON INSTRUCTOR PILOTS

WEEKS	COURSE	PERFORMING ACTIVITY
1	Familiarization/Instrument	VMGRT-253/Tactical Squadron
1	Air Refueling Instructor	VMGRT-253
1	Low Level Navigation Instructor	VMGRT-253
1	Formation Instructor	VMGRT-253
1	Air Delivery Instructor	VMGRT-253
1	Assault Landing Zone Instructor	VMGRT-253
1	T&R Instructor	Tactical Squadron
1	NATOPS Instructor	Tactical Squadron
2	Low Altitude Tactics Instructor	MAWTS-1/Tactical Squadron
1	Defensive Tactics Instructor	MAWTS-1
2	Night Systems Instructor	MAWTS-1
7	Weapons and Tactics Instructor	MAWTS-1

110. GROUND TRAINING COURSES OF INSTRUCTION

1. Ground training shall be conducted for each syllabus level.

2. Squadron level ground training required to complete the syllabus is listed in each syllabus level.

3. The following external ground training courses of instruction are required to complete the syllabus.

COURSE	ACTIVITY
Survival, Evasion, Resistance, and Escape (SERE) Course NITE lab	NAS Brunswick ME, or NAS North Island CA VMGRT-253 or Tactical Squadron

4. The following external training courses are recommended to complete the syllabus:

COURSE	ACTIVITY
Advanced Airlift Tactics Training Course	AATTC, St. Joseph, MO
Environmental Survival Courses	Regional/Seasonal Survival Schools

111. AIRCREW TRAINING REFERENCES. The following references shall be utilized to ensure safe and standardized training procedures, grading criteria, and aircraft operation:

NATOPS General Flight and Operating Instructions (OPNAVINST 3710.7_)
NATOPS Flight Manuals (NFM)
NATOPS Instrument Flight Manual (NIFM)
NATOPS Air-to-Air Refueling Manual (AAR Manual)
KC-130 Tactical Manual (TACMAN)/KC-130 NTTP 3.22-1/3.22-3
KC-130 Tactical Pocket Guide (TPG)
T&R Program Manual
MAWTS-1 Course Catalog
Allied Tactical Publication - 56 (ATP-56) Air to Air Refueling
Flight Clearance (FC) – issued by NAVAIR
AFTTP 3-1 Threat Reference Guide
DOD Flight Information Publications (FLIPs)

120. BASIC PILOT TRAINING SUMMARY

120.1. Core Skill Introduction Training

CORE SKILL INTRODUCTION TRAINING By Stage	Events	Hours	CRP
Basic Qualification	**CNATRA Training**		**25.0**
Simulator Training	16	62.0	9.0
Familiarization/Instruments	10	30.0	11.0
Air-to-Air Refueling	3	9.0	4.0
Tactical Navigation	1	2.0	2.0
Formation	2	4.0	3.0
LRNAV	2	16.0	2.0
T3P Check	1	3.0	4.0
TOTALS (Less CNATRA Training)	**35**	**126**	**35**

120.2. Core Skill Basic Training

CORE SKILL BASIC TRAINING By Stage	Events	Hours	CRP
Familiarization (FAM)	3	7.0	1.5
Night Systems (NS)	3	7.0	1.5
Aerial Refueling (AR)	4	16.0	2.5
Tactical Navigation (TACNAV)	5	10.0	3.0
Formation (FORM)	3	6.0	1.5
Air Delivery (AD)	3	4.0	1.5
Long Range Navigation (LRNAV)	1	8.0	.5
IR Threat Reaction (THRX(I))	2	4.0	1.0
Assault Landing Zone (ALZ)	3	9.0	1.5
Rapid Ground Refueling (RGR)	1	0.0	.5
TOTALS	**28**	**71**	**15**

120.3. Core Skill Advanced Training

CORE SKILL ADVANCED TRAINING By Stage	Events	Hours	CRP
Familiarization (FAM)	3	7.0	1.5
Night Systems (NS)	1	2.0	1.0
Aerial Refueling (AR)	3	9.0	3.0
Tactical Navigation (TACNAV)	5	10.0	4.5
Formation (FORM)	4	9.0	4.0
Air Delivery (AD)	2	4.0	1.5
Radar Threat Reaction (THRX(R))	2	5.0	1.5
Assault Landing Zone (ALZ)	3	6.0	3.0
TOTALS	**23**	**52**	**20**

120.4. Core Plus Training

CORE PLUS TRAINING By Stage	Events	Hours	CRP
Air Refueling (AR)	2	9.0	1.0
Tactical Navigation (TACNAV)	4	8.0	1.5
Formation (FORM)	1	2.0	.5
Aerial Delivery (AD)	3	6.0	.7
Defensive Tactics (DEFTAC)	3	6.0	.5
Assault Landing Zone (ALZ)	2	4.0	.8
TOTALS	**15**	**35**	**5**

121. SERIES CONVERSION PILOT TRAINING SUMMARY

121.1. Core Skill Introduction Training

CORE SKILL INTRODUCTION TRAINING By Stage	Events	Hours	
Simulator Training	16	62.0	
Familiarization/Instruments	6	18.0	
Air-to-Air Refueling	3	9.0	
Tactical Navigation	1	2.0	
Formation	2	4.0	
LRNAV	2	16.0	
T3P Check	1	3.0	
TOTALS (Less CNATRA Training)	**31**	**114.0**	

121.2. Core Skill Basic Training

CORE SKILL BASIC TRAINING By Stage	Events	Hours	CRP
Familiarization (FAM)	3	7.0	
Night Systems (NS)	3	7.0	
Aerial Refueling (AR)	2	8.0	
Tactical Navigation (TACNAV)	3	6.0	
Formation (FORM)	1	2.0	
Air Delivery (AD)	1	2.0	
Long Range Navigation (LRNAV)	1	8.0	
IR Threat Reaction (THRX(I))	2	4.0	
Assault Landing Zone (ALZ)	3	9.0	
Rapid Ground Refueling (RGR)	1	0.0	
TOTALS	**20**	**53.0**	

121.3. Core Skill Advanced Training

CORE SKILL ADVANCED TRAINING By Stage	Events	Hours	CRP
Familiarization (FAM)	3	7.0	
Night Systems (NS)	1	2.0	
Aerial Refueling (AR)	1	3.0	
Tactical Navigation (TACNAV)	5	10.0	
Formation (FORM)	1	2.0	
Air Delivery (AD)	2	4.0	
Radar Threat Reaction (THRX(R))	2	5.0	
Assault Landing Zone (ALZ)	3	6.0	
TOTALS	**18**	**39.0**	

121.4. Core Plus Training

CORE PLUS TRAINING By Stage	Events	Hours	CRP
Air Refueling (AR)	2	9.0	
Tactical Navigation (TACNAV)	1	2.0	
Formation (FORM)	1	2.0	
Aerial Delivery (AD)	1	2.0	
Defensive Tactics (DEFTAC)	1	2.0	
Assault Landing Zone (ALZ)	1	2.0	
TOTALS	**7**	**19.0**	

122. REFRESHER PILOT TRAINING SUMMARY

122.1. Core Skill Introduction Training

CORE SKILL INTRODUCTION TRAINING By Stage	Events	Hours	CRP
Simulator Training	3	12.0	
Familiarization/Instruments	5	15.0	
TOTALS	**8**	**27.0**	

122.2. Core Skill Basic Training

CORE SKILL BASIC TRAINING By Stage	Events	Hours	CRP
Familiarization (FAM)	1	2.0	
Night Systems (NS)	1	2.0	
IR Threat Reaction (THRX(I))	1	2.0	
Rapid Ground Refueling (RGR)	1	0.0	
TOTALS	**4**	**6.0**	

122.3. Core Skill Advanced Training

CORE SKILL ADVANCED TRAINING By Stage	Events	Hours	CRP
Familiarization (FAM)	2	4.0	
Aerial Refueling (AR)	2	6.0	
Tactical Navigation (TACNAV)	2	4.0	
Formation (FORM)	1	2.0	
Air Delivery (AD)	1	2.0	
Radar Threat Reaction (THRX(R))	1	2.0	
Assault Landing Zone (ALZ)	1	2.0	
TOTALS	**10**	**22.0**	

122.4. Core Plus Training

CORE PLUS TRAINING By Stage	Events	Hours	CRP
Air Refueling (AR)	2	9.0	
Tactical Navigation (TACNAV)	1	2.0	
Aerial Delivery (AD)	1	2.0	
Defensive Tactics (DEFTAC)	1	2.0	
Assault Landing Zone (ALZ)	1	2.0	
TOTALS	**6**	**17.0**	

125. GRADUATE LEVEL COURSES. There are 4 graduate level courses (LATI, DEFTACI, NSI, WTI) that qualify instructors for specific portions of the T&R syllabus. The requirements for these instructor certifications are contained in the MAWTS-1 Course Catalog. Squadron T&R Instructors shall complete the required syllabus and be designated by commanding officers to instruct specific T&R events as delineated in the individual event descriptions. Stage Instructors are utilized primarily by the FRS and will be designated by commanding officers to instruct in specific T&R mission stages, such as LRNAV, FORM, TACNAV, AR, ALZ and AD.

130. EVENT PERFORMANCE REQUIREMENTS

1. General

a. The time required to train a KC-130 pilot to completion of the Core Plus phase will vary depending on previous pilot experience. Basic, Transition, and Conversion pilots shall fly the entire syllabus. Series Conversion pilots should fly events coded with an SC. Refresher pilots represent a varying background and should fly flights coded with an R. **When a crewmember completes a stage of training, that crewmember need only maintain proficiency in the R coded events for that stage to remain**

proficient. Commanding officers will review the qualifications, previous experience, currency, and demonstrated ability of Refresher pilots with a view towards waiving and/or combining required flights.

b. Once a pilot has completed the Core Skill Introduction series and maintains currency in type and model, there is no requirement to refly Core Skill Introduction flights.

c. All simulator training codes should be flown prior to the first flight in the aircraft for that stage/phase. Approved IFARS simulators are contained in OPNAVINST 3710.7_. If an approved simulator is not available, unapproved simulators may be used for simulator training at the discretion of the squadron commander. Unapproved simulator time may not be usable for annual flight time minima.

d. All flights annotated with an E shall be evaluated per the Aviation T&R Program Manual.

e. Minimum required Refresher flights are indicated with an R. Additional guidance concerning Refresher pilots is contained in the Aviation T&R Program Manual.

f. Flights annotated with an N shall be flown at night without NVDs. Flights annotated with an (N) may be flown at night without NVDs. Flights annotated with an NS shall be flown at night utilizing NVDs. Flights annotated with an (NS) may be flown at night utilizing NVDs.

g. The intent of NS events is to conduct the events with use of NVDs. This should not restrict aircrews from executing events between sunset and end of nautical twilight or beginning of nautical twilight and sunrise when NVDs are less effective. Use of NVDs during these periods shall be at the discretion of the aircraft commander with safety and the NS intent in mind.

h. For NS operations, the fixed-wing minimum altitudes delineated in the Aviation T&R Program Manual shall be adhered to in all phases of flight except for TLZ operations and airdrops from IP inbound, at which point a descent to airdrop altitude or final approach procedure may be conducted. Minimum altitudes for Aerial Delivery shall be as per NWP 3-22.5-KC-130, Vol. 1, Chapter 6 and Appendix H.

i. Non-LAT qualified pilots conducting LAT training in the left or right seat shall be instructed by a proficient LATI occupying the other pilot seat. Pilots who lose proficiency in LAT lose their LAT qualification.

j. Non-DEFTAC qualified pilots who are conducting DEFTAC training shall be instructed by a DEFTACI occupying the other pilot seat.

k. The following terms shall be used in the event descriptions to identify instructor and student responsibilities and standardize instruction:

(1) Discuss. Discuss denotes that the instructor will quiz the aircrew under instruction on the applicable procedures, systems, or maneuvers. The aircrew under instruction is responsible for knowledge of the procedures prior to the event brief.

(2) Demonstrate. Demonstrate denotes that the instructor should perform the maneuver with precision and an accompanying description. The aircrew under instruction is responsible for knowledge of the procedures prior to the event brief and should observe the demonstration of the

maneuver. The aircrew under instruction may perform the maneuver/procedure with coaching from the instructor.

(3) Introduce. Introduce denotes that the instructor should coach the aircrew under instruction through the maneuver as necessary. The aircrew under instruction is responsible for knowledge of the procedures prior to the event brief and should perform the maneuver with coaching as necessary. The instructor may demonstrate the maneuver if necessary.

(4) Practice. Practice denotes that the instructor observes the aircrew under instruction performing the maneuver. The aircrew should perform the maneuver/procedure with minimal coaching.

131. CORE SKILL INTRODUCTION TRAINING

1. General

a. Upon completion of this phase of training, the pilot will be a NATOPS qualified Transport Third Pilot. The pilot will be capable of basic aircraft copilot duties from the right seat to include instrument flight, normal and emergency procedures, CRM, and mission planning.

b. Basic, Transition (T), and T3P Series Conversion (SC) pilots shall be trained and evaluated in the right seat. TPC/T2P pilots in the R or SC syllabus should be trained and evaluated in the left seat.

c. All events in the Core Skill Introduction phase shall be instructed/evaluated by an appropriate FRS instructor via appropriate aircrew training form.

d. All simulator events shall be flown with an appropriate FRS instructor or an appropriately qualified Contract Simulator Instructor (CSI).

e. Approved IFARS simulators are contained in OPNAVINST 3710.7. If an approved simulator is not available, unapproved simulators may be used for simulator training at the discretion of the squadron commander. Unapproved simulator time may not be usable for annual flight time minima. If an approved simulator is unavailable, the simulator events for pilots in Training Track 1 may be waived by the commanding officer. However, simulator events for pilots in Training Track 2 may not be waived.

f. Once a pilot has completed the Core Skill Introduction series and maintains currency in type and model, there is no requirement to re-fly Core Skill Introduction flights.

g. Instructors shall be responsible for mission briefs. Students may conduct a mission briefs, but only after observing the instructor brief a mission in that specific phase.

2. Familiarization/Instruments

a. Purpose. Introduce pilots to fundamental KC-130 NATOPS, instrument, and CRM procedures.

b. General

(1) Basic, Transition, Conversion, and Refresher third pilots (T3P) shall be trained and evaluated in the right seat. TPC and T2P refresher pilots should be trained and evaluated in the left seat. A minimum of two (N) coded flights shall be flown at night.

(2) Basic, Transition, and Conversion pilots should complete the USAF C-130 CIQ course prior to this stage.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training

(1) Prior to FAM-100, all Basic, Transition and Series Conversion pilots will complete a familiarization training evolution to include cockpit management, aircraft preflight and post flight, TFOA inspections, emergency evacuation, and use and donning of all emergency equipment to include bailout training.

(2) Core skill Introduction Syllabus Overview.

(3) NATOPS Flight Manual overview.

(4) VMGR Squadron Mission Statement and METLs.

(5) Six Functions of Marine Aviation and VMGR Mission.

(6) KC-130 Capabilities Review.

(7) NATOPS Briefing Techniques.

(8) NITE Lab is optional for Core Skill Introduction but should be completed at the earliest possible time as it is required to begin the NS stage of Core Basic Training.

e. Flight and Simulator Event Training (24 Events, 86.0 Hours).

SFAM-001 4.0 CPT/OFT/WST S

Goal. Introduce expanded checklists up to and including engine run-up, CRM, aircraft limitations, and performance computations.

Requirement. CSI shall introduce expanded cockpit checklists up to and including the run-up checklist. The pilot under instruction (pilot) shall practice the expanded cockpit checklists up to and including the run-up checklist.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall be able to recall aircraft limitations with associated checklists.

Prerequisite. N/A

Ordnance. N/A

External Syllabus Support. CSI.

SFAM-002 4.0 CPT/OFT/WST S

Goal. Introduce expanded checklists from before take-off to secure; introduce take-off, descent, and approach brief.

Requirement. CSI shall introduce expanded cockpit checklists from before take-off to secure. The pilot shall practice the expanded cockpit checklists up to and including the secure

checklist. The pilot shall practice previously introduced checklists.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. PILOT shall be able to recall aircraft limitations.

Prerequisite. SFAM-001.

Ordnance. N/A

External Syllabus Support. CSI.

SFAM-003 4.0 CPT/OFT/WST S

Goal. Train the pilot in normal procedures and system malfunctions. Introduce start malfunctions.

Requirement. CSI shall introduce start malfunctions. The pilot shall practice normal checklists and aircraft limitations associated with the checklists. The pilot should compute Take-off and Landing Data (TOLD) card.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle all start malfunctions IAW NFM.

Prerequisite. SFAM-002.

Ordnance. N/A

External Syllabus Support. CSI.

SFAM-004 4.0 CPT/OFT/WST S

Goal. Train the pilot in normal procedures, system malfunctions, and ground emergency procedures.

Requirement. CSI shall introduce ground emergencies. The pilot shall practice normal checklists and start malfunctions. The pilot should compute TOLD card.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. PILOT shall diagnose and handle all ground emergencies IAW NFM.

Prerequisite. SFAM-003.

Ordnance. N/A

External Syllabus Support. CSI.

SFAM-005 4.0 SC,R CPT/OFT/WST S

Goal. Cockpit procedures stage progress review. Review normal checklists and start malfunctions. Practice ground emergencies.

Requirement. CSI and pilot shall review normal checklists and start malfunctions. The pilot shall practice ground emergencies and compute Landing data.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide.

Prerequisite. SFAM-004.

Ordnance. N/A

External Syllabus Support. CSI.

SFAM-006 4.0 OFT/WST S/A

Goal. Train the pilot in normal procedures, propeller system malfunctions, and emergency procedures.

Requirement. CSI shall introduce VFR departure and climb, basic airwork, VFR approach, landings, and abort procedures. The pilot shall practice VFR approach and landings with coaching from the CSI as necessary. The pilot should compute TOLD card.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. PILOT shall diagnose and handle all aborts and propeller malfunctions IAW NFM.

Prerequisite. SFAM-005.

Ordnance. N/A

External Syllabus Support. CSI.

SFAM-007 4.0 SC OFT/WST S/A

Goal. Train the pilot in normal procedures, system malfunctions, and emergency procedures. Introduce steep turns and approach to stalls.

Requirement. CSI shall introduce steep turns, approach to stalls, and engine systems failures. The pilot shall practice steep turns and approach to stalls. The pilot should compute 3 engine go-around capabilities.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle all engine systems malfunctions IAW NFM.

Prerequisite. SFAM-006.

Ordnance. N/A

External Syllabus Support. CSI.

SINST-008 4.0 SC OFT/WST S

Goal. Train the pilot in normal procedures, system malfunctions, emergency procedures, and instrument procedures. Introduce flight planning, clearance procedures, radio NAVAID IFF/SIF management, and GCA approaches.

Requirement. CSI shall introduce flight planning, clearance procedures, radio NAVAID IFF/SIF management, and GCA approaches. CSI shall introduce electrical system and

associated malfunctions. The pilot shall practice duties associated with instrument flight procedures. The pilot should compute 3 engine climb performance.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle all electrical malfunctions IAW NFM.

Prerequisite. SFAM-007.

Ordnance. N/A

External Syllabus Support. CSI.

SINST-009 4.0 SC OFT/WST S

Goal. Train the pilot in normal and instrument flight procedures, system malfunctions, and emergency procedures. Introduce ILS procedures.

Requirement. CSI shall introduce ILS procedures, and bleed air and anti-icing system malfunctions.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle bleed air and anti-icing emergencies IAW NFM.

Prerequisite. SINST-008.

Ordnance. N/A

External Syllabus Support. CSI.

SINST-010 4.0 SC OFT/WST S

Goal. Train the pilot in normal and instrument flight procedures, fuel system malfunctions and emergency procedures. Introduce TACAN, VOR, ADF approaches, and holding procedures.

Requirement. CSI shall introduce TACAN, VOR, ADF approaches, and holding procedures. CSI shall introduce fuel system malfunctions. The pilot should compute performance computations IAW Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle fuel system malfunctions IAW NFM.

Prerequisite. SINST-009.

Ordnance. N/A

External Syllabus Support. CSI.

SINST-011 4.0 SC OFT/WST S

Goal. Train the pilot in normal procedures, system malfunctions, emergency procedures, and instrument procedures to include circling and penetration/high approaches.

Requirement. CSI shall introduce circling approaches, and

penetrations/high approaches. CSI shall introduce hydraulic malfunctions, trim, flaps, and landing gear failures. The pilot shall practice circling approaches and penetration/high approaches. The pilot should compute driftdown performance IAW Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle hydraulic malfunctions and trim, flaps and landing gear failures IAW NFM.

Prerequisite. SINST-010.

Ordnance. N/A

External Syllabus Support. CSI.

SINST-012 4.0 SC,R OFT/WST S

Goal. Train the pilot in normal procedures, system malfunctions, emergency procedures, and instrument procedures. Introduce engine-out approaches, landings, and missed approach/go-around procedures. Introduce takeoff continued after engine failure.

Requirement. CSI shall introduce engine-out approaches, landings, and missed approach/go-around procedures. CSI shall introduce takeoff continued after engine failure. The pilot should compute certain performance computations IAW Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall practice takeoff continued after engine failure procedures IAW NFM.

Prerequisite. SINST-011.

Ordnance. N/A

External Syllabus Support. CSI.

SINST-013 4.0 SC,R OFT/WST S

Goal. Train the pilot in normal procedures, system malfunctions, emergency procedures, and instrument procedures. Introduce two engine approach, landing, and go-around. Introduce partial panel/no gyro approach.

Requirement. CSI shall introduce two engine approach, landing, go-around, and partial panel/no gyro approaches. CSI shall introduce fuel/cargo jettison and NAVAID/radio failure. Pilot shall practice two engine approaches, landings, and go-around with coaching from the CSI as necessary. Pilot should compute descent performance IAW Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. The pilot shall conduct fuel/cargo jettison procedures and handle NAVAID/radio failure IAW NFM.

Prerequisite. SINST-012.

Ordnance. N/A

External Syllabus Support. CSI.

SINST-014 4.0 SC,R OFT/WST S

Goal. Simulator stage progress review. Review all previously introduced procedures and system malfunctions.

Requirement. CSI and Pilot shall review all previously introduced procedures and system malfunctions. The pilot should compute critical field length IAW Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot shall practice all procedures and handle all emergencies IAW NFM.

Prerequisite. SINST-013.

Ordnance. N/A

External Syllabus Support. CSI.

FAM-100 3.0 1 KC-130 A

Goal. Train the pilot in normal flight procedures. Introduce preflight, taxi, take-off, VFR departure, aerodynamic performance, stability and control, approach to stalls, VFR approach, VFR break, 100 percent and 50 percent flap landings.

Requirement. Instructor shall introduce preflight, taxi, take-off, VFR departure, aerodynamic performance, stability and control, approach to stalls, VFR approach, VFR break, 100 percent and 50 percent flap landings. Instructor should introduce start malfunctions. The pilot should compute VMC, Take-off speed, Refusal speed, Stall speed, Climb, Approach, Threshold, and Touchdown speed.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide. Pilot should diagnose and handle all start malfunctions IAW NFM.

Prerequisite. SINST-014.

Ordnance. N/A

External Syllabus Support. N/A

INST-101 3.0 SC,R 1 KC-130 A

Goal. Train the pilot in normal and instrument flight procedures. Introduce instrument departure, basic instrument maneuvers to include timed turns, climbs, and descents, GCA procedures, and oil system malfunctions.

Requirement. Instructor shall introduce instrument departure, basic instrument maneuvers to include timed turns, climbs, and descents, GCA procedures, and oil system malfunctions. Instructor shall introduce NAVAID configuration and NAV MODE selector operation. The pilot shall practice 100 percent and

50 percent flap landings. The pilot should compute VMC, Takeoff speed, refusal speed, specific range, approach, threshold, and touchdown speed. Refreshers should complete this flight concurrently with FAM-100.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. The pilot shall diagnose and handle all oil system malfunctions IAW NFM.

Prerequisite. FAM-100.

Ordnance. N/A

External Syllabus Support. N/A

INST-102 3.0 1 KC-130 A (N)

Goal. Train the pilot in normal procedures, instrument flight procedures to include ILS and Localizer approach procedures, bleed air system malfunctions, and ground emergency procedures.

Requirement. Instructor shall introduce ILS/Localizer procedures, the bleed air system, and ground emergencies. The pilot shall practice 100 percent and 50 percent flap landings. The pilot should compute VMC, takeoff speed, refusal speed, driftdown (3 engines, maximum continuous power, flaps and gear up), approach speed, threshold speed, and touchdown speed.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall demonstrate an operational knowledge of the bleed air system. The pilot shall diagnose and handle ground emergencies IAW NFM.

Prerequisite. INST-101.

Ordnance. N/A

External Syllabus Support. N/A

INST-103 3.0 SC,R 1 KC-130 A (N)

Goal. Train the pilot in normal procedures, instrument flight procedures to include TACAN, VOR, and ADF approach procedures, system malfunctions, and emergency procedures.

Requirement. Instructor shall introduce TACAN, VOR, and ADF approaches. Instructor shall introduce hydraulics system. The pilot should practice TACAN, VOR, and ADF approaches to 100 percent and 50 percent flap landings. The pilot should compute VMC, takeoff speed, refusal speed, service ceiling (3 engines with pods), approach speed, threshold speed, and touchdown speed. Refreshers should complete this flight concurrently with INST-102.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall demonstrate an operational knowledge of the hydraulics system.

Prerequisite. INST-102.

Ordnance. N/A

External Syllabus Support. N/A

INST-104 3.0 1 KC-130 A (N)

Goal. Train the pilot in normal procedures, instrument flight procedures to include holding, circling approaches and penetrations/high approaches, system malfunctions, abort procedures, and in-flight emergency procedures.

Requirement. Instructor shall introduce abort procedures. Instructor shall introduce holding, circling approaches, penetrations/high approaches, and in-flight emergencies. PILOT should practice circling approaches, penetration/high approaches to 100 percent and 50 percent flap landings. The pilot should compute VMC, takeoff speed, refusal speed, maximum endurance (4 engines, normal bleed), approach speed, threshold speed, and touchdown speed.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle aborts and in-flight emergencies IAW NFM.

Prerequisite. INST-103.

Ordnance. N/A

External Syllabus Support. N/A

INST-105 3.0 SC,R 1 KC-130 A

Goal. Train the pilot in normal procedures, instrument flight procedures, system malfunctions, in-flight emergency procedures to include engine-out operations.

Requirement. Instructor shall introduce propeller and engine malfunctions. Instructor shall introduce engine-out operations, three engine precision approaches, landings, missed approaches and go-arounds. Flight will be conducted in day VMC conditions. Pilot should compute VMC, takeoff speed, refusal speed, cruise ceiling (3 engines with pods), approach, threshold, and touchdown speeds. Refreshers should complete this flight concurrently with INST-104. Refreshers do not have the day VMC restriction.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle propeller and engine malfunctions IAW NFM.

Prerequisite. INST-104.

Ordnance. N/A

External Syllabus Support. N/A

INST-106 3.0 1 KC-130 A

Goal. Train the pilot in normal procedures, instrument flight procedures, electrical system malfunctions, and in-flight

emergency procedures to include three engine non-precision approaches, missed approaches and go-arounds.

Requirement. Instructor shall introduce three-engine non-precision approaches, missed approaches and go-arounds. Instructor shall introduce the electrical system and nacelle overheat warning. Pilot should practice aborts and engine out non-precision approaches and landings. Flight will be conducted in daylight VFR conditions. Pilot should compute VMC, takeoff speed, refusal speed, specific range (3 engines, 20,000 feet), 3 engine approach, threshold, and touchdown speeds.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall demonstrate an operational knowledge of the electrical system and procedures for nacelle overheat warning.

Prerequisite. INST-105.

Ordnance. N/A

External Syllabus Support. N/A

INST-107 3.0 SC,R 1 KC-130 A

Goal. Train the pilot in normal procedures, instrument flight procedures, fuel and oxygen system malfunctions, and in-flight emergency procedures to include fuselage fire and smoke and fume elimination. Introduce Take-off continued after engine failure and demonstrate two engine approach.

Requirement. Instructor shall introduce three-engine circling approach and take-off continued after engine failure. Instructor shall introduce fuel and oxygen systems and associated malfunctions. Instructor shall demonstrate two-engine and no-flap approaches and landings. Flight will be conducted in daylight VFR conditions. Pilot should compute 2 Engine VMC (air), takeoff speed, refusal speed, 2 engine downwind, base, approach, threshold, and touchdown speeds. Refreshers should complete this flight concurrently with INST-106 and do not have the day VMC restriction.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall demonstrate an operational knowledge of the fuel and oxygen systems and associated malfunctions.

Prerequisite. INST-106.

Ordnance. N/A

External Syllabus Support. N/A

INST-108 3.0 1 KC-130 A (N)

Goal. Train the pilot in normal procedures, instrument flight procedures to include partial-panel/no gyro approaches. Introduce Gas Turbine Compressor and Air Turbine Motor systems. Introduce pressurization, air conditioning, and anti-icing/de-icing system malfunctions, and in-flight

emergency procedures.

Requirement. Instructor shall introduce partial panel/no-gyro approaches. Instructor shall introduce GTC and ATM systems. Instructor shall introduce pressurization, air conditioning, and anti-icing/de-icing systems and associated malfunctions. Pilot should practice all previously introduced procedures. Pilot should compute TOLD card.

Performance Standard. Per the NFM, IFM, and Pilot 100 Syllabus Student Guide. Pilot shall diagnose and handle all system malfunctions IAW NFM.

Prerequisite. INST-107.

Ordnance. N/A

External Syllabus Support. N/A

INST-109 3.0 SC,R 1 KC-130 A (N)

Goal. Familiarization/Instrument stage progress review. Review NATOPS normal, emergency, and instrument flight procedures.

Requirement. Instructor and PILOT shall review NATOPS normal, emergency, and instrument flight procedures. The pilot shall perform all maneuvers required for a standard instrument rating. The pilot should compute TOLD card. Refreshers should complete this flight concurrently with INST-108.

Performance Standard. Per the NFM, IFM, Pilot 100 Syllabus Student Guide, and OPNAVINST 3710.7_.

Prerequisite. INST-108.

Ordnance. N/A

External Syllabus Support. N/A

3. Air Refueling

a. Purpose. To introduce pilots with basic air refueling procedures.

b. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events to include one observer per operated aerial refueling pod.

c. Ground/Academic Training

(1) Air Refueling Procedures Lecture.

(2) Introduction to Air Refueling.

(3) In-flight Refueling System.

(4) Air Refueling Procedures.

(5) Voice Procedures.

(6) Tactical Briefing Guide.

d. Flight and Simulator Event Training (4 Events, 13.0 Hours)

SAR-015 4.0 SC OFT/WST S

Goal. Train the pilot in fixed-wing and rotary-wing air refueling procedures.

Requirement. CSI shall introduce radio procedures, tanker/receiver management, rotary-wing rendezvous procedures and emergency procedures related to AAR. The pilot should be exposed to duties in both the left and right seats during simulated AAR operations. The pilot should compute fuel calculations IAW Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM, KC-130 TACMAN/NTTP, NATOPS AAR Manual, and Pilot 100 Syllabus Student Guide.

Prerequisite. SINST-014.

Ordnance. N/A

External Syllabus Support. CSI.

AR-110 3.0 SC 1 KC-130 A

Goal. Train the pilot in fixed-wing AAR procedures. Introduce radio procedures, tanker/receiver management, and emergency procedures related to AAR.

Requirement. Instructor shall introduce radio procedures, tanker/receiver management, and emergency procedures related to fixed-wing AAR. Instructor shall introduce pilot responsibilities during air refueling. Instructor shall introduce emergencies associated AAR to include hose jettison, landing with hose extended, and breakaway procedures. Pilot should compute air refueling performance calculations IAW Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM, KC-130 TACMAN/NTTP, the NATOPS AAR Manual, and Pilot 100 Syllabus Student Guide.

Prerequisite. INST-105, SAR-015.

Ordnance. N/A

External Syllabus Support. Fixed-wing receivers, Special Use Airspace.

AR-111 3.0 SC 1 KC-130 A

Goal. Train the pilot in rotary-wing AAR procedures. Introduce rendezvous procedures, rotary-wing refueling procedures, and emergency procedures related to rotary-wing air refueling.

Requirement. Instructor shall introduce rendezvous procedures, rotary-wing refueling procedures, and emergency procedures related to rotary-wing air refueling. PILOT should compute air refueling performance calculations IAW Pilot 100 Syllabus Student Guide. Flight will be conducted in day VMC conditions. Two (2) rendezvous' are required for completion.

Performance Standard. Per the NFM, KC-130 TACMAN/NTTP, the NATOPS AAR Manual, and Pilot 100 Syllabus Student Guide.

Prerequisite. INST-105, SAR-015.

Ordnance. N/A

External Syllabus Support. Rotary-wing receivers, Special Use Airspace.

AR-112 3.0 SC 1 KC-130 A (N)

Goal. AAR stage progress review.

Requirement. Pilot shall perform radio procedures, tanker/receiver management, and emergency procedures related to aerial refueling. Sortie may be fixed-wing or rotary-wing air refueling. Pilot should compute air refueling performance calculations IAW Pilot 100 Syllabus Student Guide.

Performance Standard. Per the NFM, KC-130 TACMAN/NTTP, the Air Refueling Manual, and Pilot 100 Syllabus Student Guide.

Prerequisite. AR-110, AR-111.

Ordnance. N/A

External Syllabus Support. Fixed or rotary-wing receivers, Special Use Airspace.

4. Tactical Navigation

a. Purpose. To introduce pilots to low level navigation and air delivery operations.

b. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

c. Ground/Academic Training

(1) Military Interpretation of Terrain.

(2) Chart Preparation.

(3) Low Level Flight Planning.

(4) Low Level Procedures and Navigation Techniques.

(5) Basic Cargo Air Delivery Procedures.

(6) Basic Troop Air Delivery Procedures.

d. Flight and Simulator Event Training (1 Flight, 3.0 Hours)

TACNAV-120 2.0 SC 1 KC-130 A

Goal. Introduce the pilot to low-level navigation to a simulated air delivery.

Requirement. Instructor shall introduce procedures, limitations, and hazards associated with low-level flight.

Instructor shall introduce AD procedures from LL ingress utilizing a modified slowdown profile. Pilot will plan and navigate a low level route of at least six checkpoints. Minimum altitude per T&R Program Manual.

Performance Standard. Per the NFM and KC-130 TACMAN/NTTP, and Pilot 100 Syllabus Student Guide. Arrive at the target within 90 seconds.

Prerequisite. INST-105.

Ordnance. N/A

External Syllabus Support. Military training route.

5. Formation

a. Purpose. Introduce pilots to basic section formation procedures.

b. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

c. Ground/Academic Training. Formation techniques and procedures.

d. Flight and Simulator Event Training (2 Flights, 4.0 Hours)

FORM-130 2.0 2 KC-130 A

Goal. Introduce the pilot to section formation procedures.

Requirement. Instructor shall introduce ground formation procedures, takeoff, climb, and a minimum of three join-ups. Instructor shall introduce parade, trail, and free cruise positions, and VFR section recovery. Pilot should perform a minimum of three join-ups. Pilot should compute VMC, refusal speed, take-off speed, climb speed, approach, threshold, and touchdown speed.

Performance Standard. Per the NFM and KC-130 TACMAN/NTTP, and Pilot 100 Syllabus Student Guide.

Prerequisite. INST-105.

Ordnance. N/A

External Syllabus Support. Special Use Airspace.

FORM-131 2.0 2 KC-130 A

Goal. Formation stage progress review. Introduce low level formation and IFR weather penetration procedures.

Requirement. Instructor shall introduce Low level formation positions and IFR weather penetrations procedures. Pilot shall practice ground formation procedures, takeoff, climb, and a minimum of three join-ups. Pilot shall practice parade, trail, and free cruise positions and VFR section recovery. PILOT should compute VMC, refusal speed, take-off speed, climb speed, approach, threshold, and touchdown speed.

Performance Standard. Per the NFM and KC-130 Tactical Manual, and Pilot 100 Syllabus Student Guide.

Prerequisite. FORM-130.

Ordnance. N/A

External Syllabus Support. Special Use Airspace.

6. Post Maintenance Check Flight (PMCF)

a. Purpose. Familiarize the pilot with PMCF procedures.

b. Crew Requirement. Two pilots are required for simulator events.

c. Ground/Academic Training. N/A.

d. Flight and Simulator Event Training (1 Period, 2.0 Hours)

SPMCF 016 2.0 SC OFT/WST S

Goal. Introduce profile A, B, C, D and E functional checkflight procedures.

Requirement. CSI shall introduce profile A, B, C, D and E functional checkflight procedures. CSI shall introduce crew qualification, and weather criteria for functional checkflights. Pilot shall compute VMC, take-off speed, refusal speed, 3 engine climb speed, approach, threshold, and touchdown speeds.

Performance Standard. Per the NFM.

Prerequisite. SINST-014.

Ordnance. N/A

External Syllabus Support. CSI.

7. Long Range Navigation

a. Purpose. Introduce the pilot to long-range overwater navigation and ICAO procedures.

b. Crew Requirement. The minimum crew as defined by the NFM is required for flight events.

c. Ground/Academic Training. ICAO procedures, FLIP AP's, and foreign clearance guide familiarization.

d. Flight and Simulator Event Training (2 Events, 16.0 Hours)

LRNAV-150 8.0 1 KC-130 A (N)

Goal. Introduce the pilot to long-range overwater and ICAO procedures.

Requirement. Instructor shall introduce overwater navigation, CRM, flight publications, fuel management, types of cruise schedules, factors affecting range, and operation in an ICAO environment. Flight will be conducted in an ICAO environment.

Pilot shall compute performance data via cruise summary chart.

Performance Standard. Per the NFM.

Prerequisite. INST-105.

Ordnance. N/A

External Syllabus Support. N/A

LRNAV-151 8.0 1 KC-130 A (N)

Goal. Train the pilot in long range overwater and ICAO procedures.

Requirement. Instructor and pilot shall review overwater navigation, CRM, flight publications, fuel management, types of cruise schedules, factors affecting range, and operation in an ICAO environment. Flight will be conducted in an ICAO environment. Pilot shall compute performance data via cruise summary chart.

Performance Standard. Per the NFM and Pilot 100 Syllabus Student Guide.

Prerequisite. LRNAV-150.

Ordnance. N/A

External Syllabus Support. N/A

8. NATOPS Check

a. Purpose. Conduct a T3P/T2P NATOPS evaluation.

b. General. An annual NATOPS check may be conducted any time after completion of the Core Skill Introduction FAM/INST stage. Commanders shall not designate replacement pilots as a T3P and assign MOS 7556 until satisfactory completion of the entire Core Skill Introduction phase. The provisions of the NFM and OPNAVINST 3710.7_apply.

c. Crew Requirements. The minimum crew as defined by the NFM is required for flight events.

d. Ground/Academic Training. N/A.

e. Flight Training (1 Flight, 3.0 Hours)

CK-190 3.0 SC,R E 1 KC-130 A (N)

Goal. NATOPS evaluation flight.

Requirement. ANI shall conduct NATOPS evaluation flight. Basic, Transition, Series Conversion, and T3P Refresher pilots shall be evaluated in the right seat. TPC and T2P Refresher pilots should be evaluated in the left seat. PILOT should compute TOLD card.

Performance Standard. Per the NFM and OPNAVINST 3710.7_.

Prerequisite. INST-109.

Ordnance. N/A

External Syllabus Support. N/A

132. CORE BASIC TRAINING

1. General. The focus of Core Basic Training is to train the copilot in right seat (pilot-not-flying) duties. Upon completion of this phase of training, the pilot will be qualified to operate as a copilot, day or night in the basic Core Skill mission areas. This includes Air-To-Air Refueling (AAR), Tactical Navigation (TACNAV), formation, Aerial Delivery (AD), long range navigation, DASC(A), Assault Landing Zone/Expeditionary Airfield (ALZ/EAF) operations, and threat reaction in an IR threat environment. T3Ps may assist in mission planning. However, the TPC shall conduct the mission brief for each initial event.

a. At the completion of this phase, the copilot may be recommended for upgrade to T2P by the APRB, complete the T2P NATOPS check (RQD-684) check-ride, and be designated T2P by the commanding officer. While T2P designation is not a requirement to begin Core Advanced training, it should be obtained as soon as possible to provide the commander a measure of Core Basic skill progression.

b. Transition pilots shall follow the Basic POI. Series Conversion (SC) and Refresher (R) syllabus pilots entering Core Basic training must have completed the appropriate Core Skill Introduction training. Refresher pilots shall follow the Refresher POI and Series Conversion pilots shall follow the Series Conversion POI.

c. Pilots shall receive initial training by the appropriate instructor as delineated in the respective T&R event. Once a pilot has completed the initial event, the pilot shall be considered qualified in that event.

d. Pilots conducting Night Systems (NS) training shall be instructed by an NSI for all NVD events until they are NS qualified (NSQ). After NS qualification, subsequent initial NVD events may be flown with the appropriate instructor as delineated in the respective T&R event.

e. Evaluated simulator events shall be conducted with either an appropriate instructor or an appropriately qualified Contract Simulator Instructor (CSI).

f. In the event of WST non-availability, simulator events should be conducted in the aircraft. Appropriate Operational Risk Management (ORM) policies should be used to reduce risk associated with not using a WST.

2. Familiarization

a. Purpose. Train the pilot in NATOPS procedures to include pre-flight and in-flight normal, emergency and instrument procedures.

b. General. The familiarization stage in the Core Basic syllabus is designed to refresh the T3P on basic procedures, introduce individual squadron Standing Operating Procedures (SOP) and evaluate the pilot’s ability to perform basic copilot duties in the right seat.

(1) Transition and Series Conversion (SC) pilots shall complete the entire Familiarization stage. Refresher (R) pilots are only required to complete FAM-201 prior to continuing Core Basic training.

(2) This stage shall be instructed by a squadron ANI and must be completed prior to continuing Core Basic Training.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. Pilot shall be prepared to discuss squadron and station local SOPs. Instructor shall ensure pilot has access to all required reference material to continue Core Basic Training.

e. Flight and Simulator Event Training (3 Events, 7.0 Hours)

SFAM-200 3.0 SC OFT/WST S

Goal. Train the pilot in right seat normal, emergency, and instrument procedures, with an emphasis on checklist execution, terminal area procedures, basic air work, and approaches/landings.

Requirement. Practice right seat normal, emergency, and instrument procedures under day and night conditions. Demonstrate an ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions, the ability to complete an instrument approach under emergency conditions.

Performance Standard. Safely fly instrument approaches with emergency procedures IAW NATOPS and the IFM.

Prerequisite. N/A

Ordnance. N/A

External Support Required. CSI.

FAM-201 2.0 SC 1 KC-130 A

Goal. Introduce squadron and station local SOPs to pilot. Introduce right seat day NATOPS and instrument procedures to the pilot, and allow sufficient practice of this code for the pilot to be able to pass a T3P check ride if required.

Requirement. This event shall be instructed by an ANI. The instructor shall introduce squadron and local area SOPs, course rules and SIDs/STARs for the home field. The intent of FAM-201 is to fly it the minimum number of times necessary to ensure standardization and competency. If the pilot has not completed a KC-130 T3P NATOPS check, the FAM-201 should be re-flown until the pilot has T3P recommendations from two separate FAM instructors before flying the T3P check ride. Emphasis shall be on ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions, the ability to complete an instrument approach under emergency conditions, instrument procedures knowledge, systems and limitations knowledge, CRM, and radio/checklist procedures.

Performance Standard. Safely fly instrument approaches with emergency procedures IAW NATOPS and the IFM.

Prerequisite. Completion of the KC-130 FRS, C-130 USAF pilot

initial qualification course, or the current USMC accepted C-130 training program. SFAM-200.

Ordnance. N/A

External Support Required. N/A

FAM-202 3.0 SC,R 1 KC-130 A N

Goal. Introduce night right seat NATOPS and instrument procedures to the pilot.

Requirement. This event shall be instructed by an ANI. Emphasis shall be on ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions, the ability to complete an instrument approach under emergency conditions, instrument procedures, systems and limitations knowledge, CRM, and radio/checklist procedures, aircraft lighting, and other night-specific considerations.

Performance Standard. Safely fly instrument approaches with emergency procedures at night IAW NATOPS and the IFM.

Prerequisite. FAM-201.

Ordnance. N/A

External Support Required. N/A

3. Night Systems (NS)

a. Purpose. To train the pilot in NS. The pilot will be capable of performing crew duties using NVDs during HLL or LLL conditions.

b. General

(1) The NS qualification syllabus consists of SNS-203, NS-204, NS-205, STACNAV-222, TACNAV-223 and TACNAV-224. In the event of WST non-availability, simulator events should be conducted in the aircraft. Pilots successfully completing these requirements may be issued an appropriate qualification letter by the squadron commander and log RQD-695.

(2) Series Conversion pilots that were previously designated NSQ may be issued the NSQ qualification letter and log RQD-695 upon successful completion of NS-204 and NS-205.

(3) Pilots conducting NS training shall be instructed by an NSI for all NVD events until they are NS qualified (NSQ). After NS qualification, subsequent initial NVD events may be flown with the appropriate instructor as delineated in the respective T&R event description.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. MAWTS-1 KC-130 NVD 1 and 2 ASP courses and NITE lab.

e. Flight and Simulator Event Training (3 Events, 7.0 hours).

SNS 203 3.0 SC,R (OFT/WST) S NS

Goal. Introduce the pilot to the use and wear of NVDs. Emphasis will be on cockpit pre-flight, in-flight donning, and CRM. The pilot should be exposed to various light levels throughout the training period.

Requirements. Discuss NVG flight equipment requirements, astronomical data, mission planning requirements and software (Solar Lunar Almanac Program [SLAP]). Introduce NVG setup and calibration using the Hoffman 20/20 box and discuss the use of eye lanes. Introduce ground procedures to include cockpit pre-flight, taxi, takeoff, and aborts. Introduce flight procedures to include terminal area operations under different airfield lighting configurations, NVG and aircraft emergencies, CRM, and high altitude and low altitude flight orientation.

Performance Standard. Properly pre-flight and don the NVGs. Diagnose NVG emergencies and apply corrective action. Understand capabilities and limitations of NVGs under HLL and LLL conditions.

Prerequisite. Completion of NSQ ground syllabus.

Ordnance. N/A

External Syllabus Support. CSI.

NS 204 2.0 SC 1 KC-130 A NS

Goal. Introduce the pilot to NVG operations under HLL conditions.

Requirements. The initial event shall be flown from the right seat and instructed by an NSI. Instruct the T3P in the use of NVGs to include normal and emergency procedures at altitude and in the terminal environment. The instructor shall demonstrate and introduce NVG T&Gs to the student. A minimum of five touch and go’s and one full stop should be completed by the pilot under instruction. Emphasis shall be on NVG considerations, calibration, preflight, and in-flight normal and emergency procedures. Additionally, the pilot shall be introduced to mission planning software.

Performance Standard. The pilot shall demonstrate the ability to properly pre-flight and don the NVGs, diagnose NVG emergencies and apply corrective action, understand capabilities and limitations of NVGs under HLL conditions, and demonstrate the ability to land the aircraft from the right seat on NVGs.

Prerequisite. NITE Lab, NVD 1&2 complete, FAM 201/202, SNS-203.

Ordnance. N/A

External Syllabus Support. N/A.

NS 205 2.0 SC,R 1 KC-130 A NS

Goal. Introduce pilot to NVG operations under LLL conditions.

Requirements. The initial event shall be flown from the right seat and instructed by an NSI under LLL conditions. Instruct the T3P in the use of NVGs during LLLconditions to include normal and emergency procedures at altitude and in the terminal environment. The instructor shall demonstrate and introduce NVG T&Gs to the student. A minimum of five touch and go's and one full stop shall be completed by the pilot under instruction. Focus on the capabilities and limitations of the NVGs under LLL conditions, preflight, emergency procedures, calibration, preparation and in-flight use. The pilot will review NVG mission planning software, and demonstrate a knowledge of normal and emergency procedures outlined in the NFM and NVG specific items in the MAWTS-1 NVD fixed-wing manual.

Performance Standard. The pilot shall demonstrate the ability to properly pre-flight and don the NVGs, diagnose NVG emergencies and apply corrective action, understand capabilities and limitations of NVGs under LLL conditions and demonstrate the ability to land the aircraft from the right seat on NVGs.

Prerequisite. NS-204.

Ordnance. N/A

External Syllabus Support. N/A

3. Air-to-Air Refueling (AAR)

a. Purpose. Train pilot in AAR procedures. The Core Basic AAR stage shall be flown by the T3P in the right seat and instructed by a T&R instructor.

b. General

(1) Upon completion of this stage the T3P shall be capable of functioning as a right seat copilot on fixed and rotary-wing AAR missions.

(2) The applicable Core Basic FAM sortie shall be complete prior to commencing the AAR stage. For instance, before a T3P completes the initial day FWAR (AR-210), the day FAM sortie must be complete (FAM-201).

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events to include one observer per operated aerial refueling pod.

d. Ground/Academic Training. The T3P shall be familiar with documents governing AAR procedures to include the KC-130 NATOPS, KC-130 TACMAN/NTTP, NATOPS AAR Manual and ATP-56M NATO AAR Manual. Complete the Tactical Aerial Refueling lecture from the MAWTS-1 Academic Support Package (ASP).

e. Flight and Simulator Event Training (4 Events, 16.0 Hours).

AR-210 4.0 1 KC-130 A

Goal. Introduce pilot to day single tanker, fixed-wing or tilt-rotor AAR procedures.

Requirement. The initial event shall be instructed by a T&R instructor. Focus on receiver management, communications,

checklist execution and copilot duties from initial check-in through completion of AAR. Introduce and practice copilot duties and CRM. Use of EMCON procedures is not recommended.

Performance Standard. Demonstrate the ability to control receiver aircraft from rendezvous to completion of AAR. Train in receiver management and communication from initial check-in through completion of AAR. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual and KC-130 TACMAN.

Prerequisite. FAM 201.

Ordnance. N/A

External Syllabus Support. Fixed-wing or tilt-rotor receiver aircraft.

AR-211 4.0 SC 1 KC-130 A N (NS)

Goal. Introduce pilot to night single tanker, fixed-wing or tilt-rotor AAR procedures.

Requirement. The initial event shall be instructed by a T&R instructor. This sortie may be flown in either aided or unaided conditions since there is no appreciable difference in procedures or level of difficulty between the two. However, for a T3P to fly this event on NVGs, the T3P must be either NSQ or must fly with an NSI. Focus on receiver management, communications, checklist execution and copilot duties from initial check-in through completion of AAR. Practice copilot duties and CRM. Use of EMCON procedures is not recommended.

Prerequisite. FAM 202, AR-210.

Performance Standard. Demonstrate the ability to control receiver aircraft from rendezvous to completion of AAR. Perform accurate KC-130 fuel computations. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual and KC-130 TACMAN/NTTP.

Ordnance. N/A

External Syllabus Support. Fixed-wing or tilt-rotor receiver aircraft.

AR-212 3.0 1 KC-130 A

Goal. Introduce pilot to day single tanker, rotary-wing AAR procedures.

Requirement. The initial event shall be instructed by a T&R instructor. A minimum of two (2) rendezvous' shall be demonstrated by the instructor. Focus on receiver management, communications, checklist execution and copilot duties from initial check-in through completion of AAR. Practice copilot duties and CRM. Use of EMCON procedures is not recommended.

Prerequisite. FAM 201.

Performance Standard. Demonstrate the ability to control receiver aircraft from rendezvous to completion of AAR. Perform accurate KC-130 fuel computations. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual and KC-130 TACMAN.

Ordnance. N/A

External Syllabus Support. Rotary-wing receiver aircraft.

AR-213 3.0 SC 1 KC-130 A NS

Goal. Introduce the T3P to night single tanker, rotary-wing AAR procedures while utilizing NVGs.

Requirement. The initial event shall be instructed by an NSI under HLL or LLL conditions. A minimum of two (2) rendezvous' shall be demonstrated by the instructor. Focus on receiver management, communications, checklist execution and copilot duties from initial check-in through completion of AAR. Introduce and practice copilot duties and CRM. Use of EMCON procedures is not recommended.

Prerequisite. FAM 202, AR-212, NS-204 or NS-205 (depending on light level).

Performance Standard. Demonstrate the ability to control receiver aircraft from rendezvous to completion of AAR. Perform accurate KC-130 fuel computations. Understand and apply the proper controls for operations under HLL or LLL conditions. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual and KC-130 TACMAN.

Ordnance. N/A

External Syllabus Support. Rotary-wing receiver aircraft.

5. Tactical Navigation

a. Purpose. Train the pilot in low altitude navigation to and from an objective area requiring detection or threat avoidance. The syllabus introduces low altitude navigation and Low Altitude Tactics (LAT).

b. General

(1) Upon successful completion of TACNAV-221, the T3P shall be considered Right Seat LAT Qualified and should log RQD-620. The T3P may fly as the right seat copilot on missions requiring LAT.

(2) Non-LAT sorties shall be flown at low-level minimums as defined in the T&R Program Manual.

(3) LAT minimum altitudes and rules of conduct are defined in T&R Program Manual.

(4) It is recommended that during this stage of instruction, IR SAM Threat Reaction (THRXI-261) be completed. THRXI-261 shall be instructed by a squadron LATI. Refer to the THXRI event description for specific sortie and ordnance requirements.

c. Crew Requirements. Two pilots, a navigator and TSO are recommended for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. Review the Low Level Navigation and LAT Chapters of the KC-130 TACMAN/NTTP. A squadron LATI or WTI shall administer KC-130 LAT 1, KC-130 LAT 2, LAT Maneuvering, and KC-130 Stress and Performance Limitations. These courses can be found in the MAWTS-1 KC-130 Specific Academic Support Package.

e. Flight and Simulator Event Training (5 Events, 10 Hours)

TACNAV 220 2.0 1 KC-130 A

Goal. Introduce the pilot to day low level navigation procedures.

Requirements. The initial event shall be instructed by a T&R instructor. Plan and execute a VFR navigation route consisting of at least 6 points on a published MTR. Emphasize chart-to-ground interpretation and tactical pilotage. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop, self-contained approach or RWAAR track). The TSO shall be the primary navigator. The T3P will conduct this sortie from the right seat.

Prerequisite. FAM 201.

Performance Standard. Demonstrate an understanding of terrain masking, CRM, timing corrections, chart to ground interpretation, and low level considerations/hazards.

Ordnance. N/A

External Syllabus Support. Approved Military Training Route (MTR) or restricted area.

TACNAV-221 2.0 SC 1 KC-130 A

Goal. Demonstrate to the pilot day right seat LAT procedures.

Requirements. The initial event shall be instructed by a LAT I. The LAT I shall introduce flying at comfort level, terrain masking, ridgeline crossing, lookout doctrine, hard turns, break turns, bunts, jinks and IR threat reaction maneuvers. The route flown should afford the opportunity to perform LAT maneuvering, e.g. ridges, valleys, open areas and easily identifiable terrain features. The T3P will focus on right seat copilot duties during this sortie and upon successful completion, will be qualified for Right Seat LAT. The T3P should log the RQD-620 tracking code.

Performance Standard. The T3P must be capable of performing copilot duties in the LAT environment to include tactical pilotage, secondary navigator, and CRM.

Prerequisite. FAM-201, TACNAV-220.

Ordnance. N/A.

External Syllabus Support. LAT approved MTR or restricted area.

STACNAV-222 2.0 SC OFT/WST S NS

Goal. Introduce the pilot to NVG low level procedures.

Requirement. Pilot will plan and navigate a low level route of at least 6 points at night. Emphasize chart-to-ground interpretation and tactical pilotage while utilizing NVGs. This event may be waived if an NVG compatible simulator is not available.

Performance Standard. Demonstrate an understanding of terrain masking, CRM, timing corrections, chart to ground interpretation, and NVG considerations/hazards.

Prerequisite. FAM-201.

Ordnance. N/A

External Syllabus Support. CSI.

TACNAV-223 2.0 1 KC-130 A NS

Goal. Introduce the pilot to right seat, NVG low level navigation under HLL.

Requirement. The initial event shall be instructed by a NSI. Plan and execute a low level navigation route consisting of at least 6 points on a published MTR. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop or self-contained approach). Emphasize chart-to-ground interpretation and tactical pilotage while utilizing NVGs.

Performance Standard. Arrive over the objective plus or minus 30 seconds, demonstrate an understanding of terrain masking, CRM, timing corrections, chart to ground interpretation, and NVG considerations/hazards.

Prerequisite. NS-204, TACNAV-220, STACNAV-222.

Ordnance. N/A

External Syllabus Support. Approved MTR or restricted area.

TACNAV-224 2.0 SC 1 KC-130 A NS

Goal. Introduce the pilot to right seat, NVG low level navigation under LLL.

Requirement. The initial event shall be instructed by an NSI. Plan and execute a low level navigation route consisting of at least 6 points on a published MTR. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop or self-contained approach). The NSI shall discuss and introduce procedures and CRM required under LLL. Emphasize chart-to-ground interpretation and tactical pilotage while utilizing NVGs. Upon successful completion of this sortie, the pilot

will be NSQ, and the pilot should log the RQD-695 tracking code.

Performance Standard. Arrive over the objective plus or minus 30 seconds, demonstrate an understanding of terrain masking, CRM, timing corrections, chart to ground interpretation, and LLL NVG considerations/ hazards.

Prerequisite. NS-205, TACNAV-223.

Ordnance. N/A

External Syllabus Support. Approved MTR or restricted area.

6. Formation

a. Purpose. To train the T3P in KC-130 formation wingman duties and procedures.

b. General

(1) The Core Basic Formation syllabus is designed to introduce the T3P to copilot duties as a wingman in a flight of two or more KC-130s.

(2) Upon completion of this stage, the T3P will be capable of flying formation as a qualified copilot.

(3) The focus of formation training should be on operational employment and maintaining formation as part of a tanker cell. This includes mission/fuel planning, inter-flight communications, departure and recovery procedures, and planned and inadvertent weather penetrations.

(4) For initial NS formation training, an NSI is required if the T3P is not NSQ.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. The instructor and T3P shall review the KC-130 TACMAN/NTTP Formation chapter and the KC-130 formation AAR procedures as defined in the NATOPS AAR Manual.

e. Flight and Simulator Event Training (3 Events, 6.0 Hours)

SFORM-230 2.0 WST S

Goal. Introduce T3P to pilot and copilot duties and procedures as a KC-130 formation wingman.

Requirement. This sortie should be completed with the pilot alternating between the left and right seats. The instructor shall introduce day/night section formation procedures, proper start, taxi, run-up, and takeoff procedures in a formation. Introduce management of all comm/nav equipment as associated with formation flight and proper formation communications procedures. Demonstrate day section and division formation positions and procedures, break-up/rendezvous and lead changes.

Performance Standard. The T3P shall accurately describe formation positions.

Prerequisite. FAM-201.

Ordnance. N/A

External Syllabus Support. CSI.

FORM-231 2.0 2 KC-130 A

Goal. Introduce T3P to copilot duties and procedures as a KC-130 formation wingman.

Requirement. Initial event shall be instructed by T&R instructor. T3P shall fly in the right seat. The instructor shall introduce formation mission briefing requirements and demonstrate day section formation positions and procedures, break-up and rendezvous, and lead changes. Introduce proper start, taxi, run-up, takeoff, recovery, and landing procedures in a formation. Introduce proper management of all comm/nav equipment as associated with formation flight and proper formation communications procedures.

Performance Standard. The T3P shall accurately describe formation positions and be familiar with references stated in paragraph 6.d. above.

Prerequisite. FAM-201.

Ordnance. N/A

External Syllabus Support. Military Operating Area (MOA) warning area or appropriately reserved airspace.

FORM-232 2.0 SC 2 KC-130 A

Goal. Introduce T3P to copilot duties and procedures involved in flying KC-130 NVG formation.

Requirement. Initial event shall be instructed by T&R instructor. The T3P shall fly in the right seat. The instructor shall review formation mission briefing requirements and demonstrate NVG formation positions and procedures, break-up and rendezvous and lead change. Introduce proper start, taxi, runup, takeoff, recovery, and landing procedures in an NVG formation, review proper management of all comm/nav equipment as associated with formation flight and proper formation communications procedures.

Performance Standard. The T3P shall accurately describe NVG formation positions, NVG considerations and be familiar with references stated in paragraph 6.c. above.

Prerequisite. FORM-231, NSQ.

External Syllabus Support. MOA warning area or appropriately reserved airspace.

7. Air Delivery (AD)

a. Purpose. Introduce the T3P to copilot duties and procedures involved in KC-130 AD operations.

b. General

(1) The Core Basic AD syllabus is designed to introduce the T3P to copilot duties involved in basic cargo or personnel AD operations.

(2) Upon completion of this stage of instruction, the T3P shall be capable of flying as a qualified copilot when conducting heavy equipment (HE), container delivery system (CDS), personnel static line and combination airdrops.

(3) When conducting an AD in conjunction with a low level ingress, the T3P shall be qualified to fly that particular profile or must fly with the appropriate instructor for that event. Initial AD sorties flown in conjunction with initial TACNAV sorties are permitted, provided all instructor requirements are met.

(4) For initial NS AD training, an NSI is required if the T3P is not NSQ.

c. Crew Requirements. Two pilots, a TSO and Flight Engineer are recommended for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. Review KC-130 TACMAN/NTTP Air Delivery chapter and KC-130 TPG. Review MAWTS-1 AD courseware.

e. Flight and Simulator Event Training (3 Events, 6.0 Hours)

SAD-240 2.0 OFT/WST S

Goal. Introduce T3P to pilot and copilot duties involved in cargo and troop air delivery operations.

Requirement. The instructor shall introduce basic AD profiles from IP inbound and focus on time warnings, checklist procedures, modified slowdown/shortlook procedures, emergency procedures and aircraft configuration techniques/CRM. The instructor shall introduce the T3P both CDS and HE profiles and discuss in detail LZ marking and identification techniques.

Performance Standard. The T3P shall be familiar with reference material stated in paragraph 7.d. above.

Prerequisite. FAM-201.

Ordnance. N/A

External Syllabus Support. CSI.

AD-241 2.0 1 KC-130 A

Goal. Introduce T3P to copilot duties involved in day cargo or troop air delivery operations.

Requirement. The initial event shall be instructed by a T&R instructor. Review personnel, HE and CDS AD checklists and procedures. The instructor shall introduce basic AD profiles from IP inbound and focus on time warnings, checklist procedures, modified slowdown/shortlook procedures, emergency procedures and aircraft configuration techniques/ CRM. An

actual personnel or cargo AD is required for initial qualification.

Performance Standard. The T3P shall demonstrate the ability to navigate to the DZ, communicate with the DZ and perform appropriate checklist items for AD procedures. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM and KC-130 TACMAN.

Prerequisite. FAM-201, SAD-240.

External Support. AD unit of any service for cargo rigging and DZ control.

AD-242 2.0 SC 1 KC-130 NS

Goal. Introduce T3P to copilot duties involved in night cargo or troop AD operations while utilizing NVGs.

Requirement. The initial event shall be instructed by an NSI or WTI and conducted under HLL or LLL conditions. Review personnel/cargo AD procedures. Emphasize LZ identification, CRM and AD procedures. An actual personnel or cargo AD is required for initial qualification.

Prerequisite. NS-204 (if HLL), NS-205 (if LLL), AD-241.

Performance Standard. The T3P shall demonstrate the ability to navigate to the DZ, communicate with the DZ and perform appropriate checklist items for AD procedures while utilizing NVGs. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM and KC-130 TACMAN.

External Support. AD platoon for cargo rigging/DZ control.

8. Long Range Navigation

a. Purpose. Review long-range, overwater navigation procedures and introduce T3P to squadron SOPs concerning deployment operations.

b. General

(1) This stage shall train the T3P in long-range overwater navigation to include performance computations, fuel planning, ICAO procedures, and copilot duties associated with aircraft deployment operations.

(2) Upon completion of this stage the T3P shall be capable of deploying as a qualified copilot on long-range overwater operations.

(3) This sortie may be instructed by a proficient TPC.

c. Crew Requirements. The minimum crew as defined by the NFM.

d. Ground/Academic Training. The TPC shall introduce applicable SOPs, Foreign Clearance Guide, FLIPs, and review performance computations referencing the KC-130 NFM.

e. Flight and Simulator Event Training (1 Event, 8.0 Hours)

LRNAV-250 8.0 SC 1 KC-130 (N)

Goal. Introduce T3P to copilot duties involved in long-range, overwater navigation procedures.

Requirement. Review aircraft performance computations to include cruise profiles, fuel planning/monitoring, passenger and crew oxygen requirements, cargo considerations and overwater emergency procedures. Copilot administrative duties involving aircraft deployment operations shall also be introduced.

Prerequisite. FAM-202.

Performance Standard. The T3P shall be familiar with references identified in paragraph 8.d. above, understand the different cruise profiles and appropriate application, and be proficient in the use of DOD FLIPs.

External Support. N/A.

9. Threat Reaction

a. Purpose. Train the pilot in the use of ASE and threat counter-tactics in a small arms, AAA, and infrared (IR) SAM threat environment.

b. General

(1) Pilots shall be introduced to the KC-130FRT ASE suite and mission planning considerations for IR SAM defense. The sortie should focus on aircrew immediate action drills when confronted with threat systems from both front and rear aspects under varying mission profiles.

(2) Upon completion of this phase, the pilot will be familiar with the mission planning and operational considerations associated with the ASE suite, expendable requirements, and tactical CRM.

(3) The use of Smokey SAM pyrotechnics and Missile Warning System stimulators is recommended. Aircrew training officers may have to be creative in gaining the best possible training due to the limited availability of expendables and ranges.

(4) Simulator events may be waived in the absence of a suitable device.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Academic/Ground Training. Review the NFM, KC-130 TACMAN/NTTP, Classified TACMAN/NTTP, AFTTP 3-1 Threat Reference Guide. A WTI should administer the KC-130 ASE, DEFTAC/ACCT, and Threat Counter-tactics classes from the MAWTS-1 KC-130 Specific ASP.

e. Flight and Simulator Training (2 Events, 4.0 Hours)

STHRX(I)-260 2.0 SC, R WST S

Goal. Introduce threat reaction drills and tactical CRM against small arms, AAA and IR SAM threat systems.

Requirement. Introduce the ASE counter measures dispensing system setup, missile warning system setup, jamming system, and threat reaction. The pilot should be exposed to a variety of threat situations of increasing intensity using both the Automatic and Manual modes of the dispensing system. Threat reaction maneuvering should include the take-off, cruise and approach phases of flight.

Prerequisite. N/A

Ordnance. N/A

External Syllabus Support. CSI.

THRX(I)-261 2.0 SC KC-130 A/S (N) (NS)

Goal. Introduce the operational use of ASE and threat counter-tactics against small arms, AAA and IR SAM threat systems.

Requirement. This event shall be instructed by a LATI. Introduce the ASE counter measures dispensing system setup, missile warning system setup, jamming system, and threat reaction. The pilot should be exposed to a variety of threat situations of increasing intensity using both the Automatic and Manual modes of the dispensing system. Threat reaction maneuvering should include the take-off, cruise and approach phases of flight.

Performance Standard. The pilot should be able to correctly operate the aircraft's ASE suite in an IR SAM environment, and react timely and correctly to threat calls. Proper CRM shall be performed in threat reaction.

Prerequisite. STHRX(I)-260, (RQD-603 or TACNAV-225 and flown with a NSI if conducted on NVGs).

Ordnance. 300 flare expendables.

External Syllabus Support. Appropriate counter-measures range, a Smokey SAM crew with a minimum of five Smokey SAMs, MWS stimulator team if available.

8. Assault Landing Zone (ALZ)

a. Purpose. Introduce the T3P in copilot duties associated with ALZ, and rapid ground refueling operations.

b. General

(1) The T3P shall be introduced to day, night and NVG ALZ operations to include visual and self-contained approach procedures, precision landings to short fields, and ground operating procedures.

(2) Upon completion of this phase the T3P will be qualified to fly as a copilot during day, night and NVG assault landing zone operations.

(3) Initial ALZ events shall be instructed by either a WTI or NSI.

(4) For the purposes of this training syllabus, ALZ operations are defined as terminal area operations from an airfield prepared with either day

or night EAF markings as defined in the KC-130 TACMAN/NTTP. Ideally, the MMT will be utilized for terminal control with tactical NAVAIDS available. A KC-130 capable unimproved assault landing zone is recommended, but not required.

(5) It is recommended that RGR-274 be conducted at an EAF, however it is not required. The RGR should include transferring fuel to receiver aircraft under tactical conditions.

c. Crew Requirements. Two pilots and a TSO are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Academic/Ground Training. T3Ps should review the KC-130 TACMAN/NTTP ALZ and RGR chapters, maximum effort performance calculations in the KC-130 NFM, and the ALZ class in the MAWTS-1 KC-130 Specific ASP.

e. Flight and Simulator Events (4 Events, 9.0 Hours)

SALZ-270 3.0 SC OFT/WST S NS

Goal. Introduce the T3P to right and left seat duties and procedures during expeditionary airfield operations.

Requirement. The T3P should have an opportunity to occupy both the left and right seats during the course of this event. This event requires a TSO for SCA procedures. This event shall be conducted under day and night aided conditions. The instructor shall discuss briefing requirements for expeditionary airfield operations, introduce max effort performance computations, discuss NVG CRM requirements and introduce max effort takeoff and landing procedures and CRM. Introduce ALZ approaches, unimproved EAF ground operating procedures, and COL procedures. NVGs should be used for a portion of this event if able.

Performance Standard. Prepare a TOLD card IAW data provided on the ATF.

Prerequisite. SFAM-200.

Ordnance. N/A

External Support. CSI.

ALZ-271 3.0 SC 1 KC-130 A

Goal. Introduce the T3P in right seat duties and procedures during day expeditionary airfield operations.

Requirement. Initial event shall be instructed by ANI, WTI. T3P shall fly in the right seat. Instructor shall demonstrate briefing requirements for expeditionary airfield operations, introduce max effort performance computations, max effort takeoff and landing procedures and CRM. Introduce visual and self-contained ALZ approaches, unimproved EAF ground operating procedures, and COL procedures.

Performance Standard. Prepare an accurate TOLD card for the mission IAW NATOPS Performance Manual. Demonstrate the ability to satisfactorily complete copilot duties in an ALZ environment to include ATC communication, performance

computations, tactical checklists, and aircraft performance monitoring.

Prerequisite. FAM-201, SALZ-270.

Ordnance. N/A

External Support. Standard USMC ALZ day panel setup utilizing AMP-1 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

ALZ-272 3.0 SC 1 KC-130 A NS

Goal. Introduce the T3P to right seat duties and procedures during NVG expeditionary airfield operations.

Requirement. Initial event shall be instructed by an ANI, WTI or NSI. The T3P shall fly in the right seat. This event shall be conducted on NVGs under any light level. COL is optional. Instructor shall demonstrate briefing requirements for NVG expeditionary airfield operations, discuss NVG CRM requirements, discuss unaided ALZ considerations, demonstrate NVG max effort takeoff and landing procedures and CRM, and NVG ALZ approach procedures. Review max effort performance computations.

Performance Standard. Prepare a TOLD card for the mission IAW NATOPS Performance Manual. Demonstrate the capability to satisfactorily complete copilot duties in an ALZ environment to include ATC communication, performance computations, tactical checklists, and aircraft performance monitoring.

Prerequisite. FAM-204, ALZ-271.

Ordnance. N/A

External Support. Standard USMC ALZ IR light setup utilizing AMP-1 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

ALZ-274 2.0 SC, R 1 KC-130 A (N) (NS)

Goal. Introduce the T3P to copilot duties during RGR operations.

Requirement. Initial event shall be instructed by T&R Instructor. Instructor shall demonstrate briefing requirements for RGR operations. Introduce personnel qualifications, duties, responsibilities and RGR CRM. Introduce RGR equipment, site weapons and passenger considerations, site configurations and threat considerations. Introduce RGR fuel planning, site setup, operation, and breakdown procedures, and NVG considerations during RGR operations (optional).

Performance Standard. Pilot shall control receivers IAW KC-130 TACMAN/NTTP and be familiar with the references described in paragraph 8.d. above.

Prerequisite. FAM-201, (FAM-204 if NVG).

Ordnance. N/A

External Support. Receiver aircraft. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

133. CORE ADVANCED TRAINING

1. General. The focus of the Core Advanced Training is to train the copilot in left-seat (pilot-flying) duties. Upon completion of this phase of training, the pilot will be qualified to perform both left seat (pilot-flying) and right seat (pilot-not-flying) duties in all core skill areas. RADAR Threat counter-tactics and multi-plane AAR shall be introduced in this phase. To maintain proficiency in a particular skill, completion of the Core Advanced event will automatically update the Core Basic event.

a. At the completion of this phase, the copilot may be recommended for upgrade to Transport Plane Commander (TPC) by the APRB, complete the TPC Upgrade syllabus, and be designated TPC by the commanding officer.

b. Transition (T) pilots shall follow the Basic POI. Series Conversion (SC) and Refresher (R) syllabus Pilots entering Core Advanced training should have completed the appropriate Core Basic training. Refresher (R) Pilots shall follow the Refresher POI and Series Conversion (SC) Pilots shall follow the Series Conversion POI.

c. Pilots shall receive initial training by the appropriate instructor as delineated in the respective T&R event. Once a pilot has completed the initial event, subsequent events may be flown with proficient aircrew. Pilots shall have completed the equivalent Core Basic event prior to completing the Core Advanced event. For instance, a pilot must have completed a TACNAV-220 (day, right seat low level) prior to completing TACNAV-320 (day, left seat low level).

d. Pilots conducting Night Systems (NS) training shall be instructed by the appropriate instructor as delineated in the respective T&R event. Pilots shall have completed the equivalent Core Basic NVG event prior to completing the Core Advanced NVG event.

e. Evaluated simulator events shall be conducted with either an appropriate instructor or an appropriately qualified contract simulator instructor (CSI).

f. In the event of WST non-availability, simulator events should be conducted in the aircraft. Appropriate Operational Risk Management (ORM) policies should be used to reduce risk associated with not using a WST.

g. While TPCs remain responsible for the conduct of the mission brief, copilots should be introduced to preparing and conducting briefs in this phase in preparation for upgrade to TPC.

2. Familiarization

a. Purpose. Train the pilot in NATOPS procedures to include pre-flight and in-flight normal, emergency and instrument procedures.

b. General. The familiarization stage in the Core Advanced syllabus is designed to train the pilot in flying the aircraft, managing the aircraft and crew, and conducting NATOPS and instrument procedures from the left seat.

(1) Transition (T) and Series Conversion (SC) pilots shall complete the entire Familiarization stage. Refresher (R) pilots are required to complete the FAM-301/302 prior to continuing Core Advanced training.

(2) This stage shall be instructed by a squadron ANI and must be completed prior to continuing Core Advanced Training.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. Pilot shall review the NFM and be prepared to discuss taxi procedures, emergency procedures and cockpit management under normal and emergency situations.

e. Flight and Simulator Event Training (3 Events, 7.0 Hours)

SFAM-300 3.0 SC OFT/WST S

Goal. Introduce the pilot to left seat ground and flight procedures.

Requirement. Introduce left seat normal, emergency, and instrument procedures under day and night conditions. Emphasize taxi procedures, basic airwork, emergencies and approaches/landings. Demonstrate an ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions, and the ability to complete an instrument approach under emergency conditions.

Performance Standard. Safely fly instrument approaches with emergency procedures IAW NFM and IFM.

Prerequisite. SFAM-200.

Ordnance. N/A

External Support Required. CSI/ANI.

FAM-301 2.0 SC,R 1 KC-130 A

Goal. Introduce day left seat ground and flight procedures to the pilot.

Requirement. This event shall be instructed by an ANI. The instructor shall introduce left seat ground, taxi and flight procedures to include engine starts, taxi and braking techniques, aircraft backing, takeoff brief, and departure procedures. In-flight, the pilot shall practice approaches and landings in the 50 and 100 percent configurations. The ANI shall introduce emergency procedures to include systems malfunctions and engine out approaches and landings. A minimum of five touch and goes and two full-stop landings shall be completed.

Performance Standard. Safely fly instrument approaches under simulated emergency conditions IAW NATOPS and the IFM.

Prerequisite. SFAM-300.

Ordnance. N/A.

External Support Required. N/A

FAM-302 2.0 SC,R 1 KC-130 A N

Goal. Introduce night left seat NATOPS and instrument procedures to the pilot.

Requirement. This event shall be instructed by an ANI. Emphasis shall be on taxi and braking procedures, and basic airwork. The instructor should evaluate the pilot's ability to diagnose basic system malfunctions and apply the appropriate NATOPS corrective actions while flying an instrument approach. A minimum of five touch and goes and two full-stop landings shall be completed. Upon completion of this event, RQD-680 shall be logged and the pilot shall be left seat qualified to continue progression through the Core Advanced Phase.

Performance Standard. Safely fly instrument approaches under simulated emergency conditions IAW NATOPS and the IFM.

Prerequisite. FAM-301.

Ordnance. N/A.

External Support Required. N/A.

3. Night Systems

a. Purpose. To train the pilot in left seat night systems operations.

b. General. The pilot shall be NS qualified in the Core Basic phase, however, left seat familiarization flights are required to ensure the pilot is prepared to conduct ground and flight operations from the left seat with the use of NVGs.

(1) Transition and Series Conversion pilots shall complete this stage.

(2) This stage shall be instructed by an NSI.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. MAWTS-1 KC-130 NVD 1 and 2 ASP courses and NITE lab.

e. Flight and Simulator Event Training (1 Events, 2.0 Hours)

NS-303 2.0 SC 1 KC-130 A NS

Goal. Train pilot in left seat NVG operations.

Requirements. The initial event shall be instructed by an NSI under any light level conditions. The instructor shall introduce left seat ground and flight operations using NVGs, to include normal and emergency procedures at altitude and in the terminal environment. The instructor shall demonstrate and introduce NVG T&Gs to the student. A minimum of five touch and go's and one full stop shall be completed by the pilot under instruction. Focus on the capabilities and limitations of the NVGs, normal and emergency procedures, and CRM.

Performance Standard. The pilot will review NVG mission planning software, and demonstrate knowledge of normal and emergency NVG procedures outlined in the NFM and NVG specific items in the MAWTS-1 NVD fixed-wing manual.

Prerequisite. NS-204, NS-205, FAM-302.

Ordnance. N/A

External Syllabus Support. N/A

4. Aerial Refueling

a. Purpose. Train pilot in air-to-air refueling (AAR) procedures. The Core Advanced AAR stage shall be flown by the Pilot in the left seat and instructed by a T&R instructor.

b. General

(1) Upon completion of this stage the pilot shall be capable of functioning in the left (pilot-flying) seat on fixed, tilt-rotor and rotary-wing AAR missions.

(2) The applicable Core Basic AAR sortie shall be complete prior to commencing the Core Advanced AAR stage. For instance, before a pilot completes the initial day FWAR (AR-310), the day right seat FWAR sortie (AR-210) must be complete. The Core Advanced day and night FAMs may be completed in conjunction with the equivalent Core Advanced AAR events. However, instructor requirements shall be adhered to. For instance, the initial left seat FWAR sortie (AR-311) may be completed at night on NVGs in conjunction with the pilot's initial NVG left seat FAM (NS-303) provided an NSI is instructing the flight and all prerequisites are complete.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events to include one observer per operated aerial refueling pod.

d. Ground/Academic Training. The pilot shall review the documents governing AAR procedures to include the KC-130 NATOPS, KC-130 TACMAN/NTTP, NATOPS AAR Manual and ATP-56M NATO AAR Manual.

e. Flight and Simulator Training (3 Events, 12.0 Hours)

AR-311 3.0 SC,R 1 KC-130 (N) (NS)

Goal. Introduce the pilot to left seat day/night single tanker, fixed-wing/tilt-rotor AAR procedures.

Requirement. This event can be flown in either day or night conditions with NVGs optional. The initial day and night (unaided or aided) event shall be instructed by a T&R instructor. Conduct single tanker rendezvous procedures and receiver management. Discuss emergency procedures related with air to air refueling. Focus on basic airwork and navigation/coordination to and from the refueling area. Use of EMCON procedures is recommended.

Performance Standard. Satisfactorily demonstrate the ability to maintain a stable platform, maintain fuel state awareness and receiver management. Additionally, demonstrate knowledge of normal and emergency procedures, and CRM outlined

in the NFM, AAR Manual and KC-130 TACMAN.

Prerequisite. FAM-301, AR-210, (FAM 302, AR-211 if night), (NS-303 if utilizing NVGs).

Ordnance. N/A.

External Syllabus Support. Fixed-wing or tiltrotor receivers.

AR-312 3.0 R 1 KC-130 A

Goal. Introduce the pilot to left seat day single tanker, rotary-wing AAR procedures.

Requirement. Conduct single tanker rendezvous procedures and receiver management. Fly a rotary-wing AAR mission from the left seat, conducting a minimum of three (3) rendezvous'. The initial event shall be instructed by a T&R instructor. Discuss emergency procedures related to air refueling. Focus on basic airwork and navigation/coordination to and from the refueling area. If flown in conjunction with a low level route, plan for an ARCP, ARCT and ENDAR.

Performance Standard. Satisfactorily demonstrate the ability to effect the rendezvous, maintain a stable platform, maintain fuel planning awareness and receiver management. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual and KC-130 TACMAN.

Prerequisite. FAM-301, AR-212.

Ordnance. N/A

External Syllabus Support. Rotary-wing receivers.

AR-313 3.0 1 KC-130 NS

Goal. Introduce the pilot to left seat NVG single tanker, rotary-wing AAR procedures.

Requirement. Conduct single tanker rendezvous procedures and receiver management. Fly a rotary-wing AR mission from the left seat, conducting a minimum of three (3) rendezvous'. The initial event shall be instructed by a NSI. Discuss emergency procedures related to air refueling and NVG considerations. Focus on basic airwork and navigation/coordination to and from the refueling area. If flown in conjunction with a low level route, plan for an ARCP, ARCT and ENDAR.

Performance Standard. Satisfactorily demonstrate the ability to effect the rendezvous, maintain a stable platform, maintain fuel planning awareness and receiver management. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual and KC-130 TACMAN.

Prerequisite. FAM 301, NS-303, AR-213, AR-312.

Ordnance. N/A.

External Syllabus Support. Rotary-wing receivers.

5. Tactical Navigation

a. Purpose. Train the pilot in left seat (pilot-flying) low altitude navigation to and from an objective area requiring detection or threat avoidance. The syllabus introduces low altitude flight, LAT, piloting techniques, and CRM.

b. General

(1) Upon successful completion of TACNAV-322, the pilot will have fulfilled the requirements for the LAT Qualification and log RQD-621. The pilot will be qualified to fly in the left seat (pilot-flying) or right (non-pilot-flying) seat on missions requiring LAT.

(2) Non-LAT sorties shall be flown at low-level minimums as defined in the T&R Program Manual.

(3) LAT minimum altitudes and rules of conduct are defined in T&R Program Manual.

(4) It is recommended that during this stage of instruction, RADAR SAM Threat Reaction (THRX(R)-361) be completed. THRX(R)-361 shall be instructed by a squadron LATI. Refer to The THRX(R) event description for specific sortie and ordnance requirements.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. Review the Low Level Navigation and LAT Chapters of the KC-130 TACMAN/NTTP. Review the LAT 1, LAT 2, KC-130 LAT Maneuvering, and KC-130 Stress and Performance Limitations. These courses can be found in the MAWTS-1 KC-130 Specific Academic Support Package.

e. Flight and Simulator Events Training (5 Events and 10.0 Hours)

TACNAV-320 2.0 SC 1 KC-130 A

Goal. Introduce the pilot to day left seat low altitude navigation procedures.

Requirements. The initial event shall be instructed by a T&R Instructor. Plan and execute a VFR navigation route, consisting of at least 6 points, on a published MTR. Emphasis shall be on aircraft vector control, terrain clearance, CRM and tactical piloting. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop, self-contained approach or RWAAR). The TSO shall be the primary navigator. The pilot shall conduct this sortie from the left seat.

Performance Standard. Arrive over the objective plus or minus 30 seconds, properly configured, and demonstrate an ability to control the aircraft’s ground track as well as knowledge of timing corrections and chart to ground interpretation.

Prerequisite. FAM-301, TACNAV-220.

Ordnance. N/A

External Syllabus Support. Approved MTR or training area.

TACNAV-321 2.0 SC 1 KC-130 A

Goal. Introduce the pilot to day left seat LAT procedures.

Requirements. The initial event shall be instructed by a LAT I. Minimum altitude per T&R Program manual. Introduce flying at comfort level, terrain masking, ridgeline crossing, lookout doctrine, hard turns, break turns, bunts, jinks and practice IR threat reaction maneuvers. The route flown should be one that affords the opportunity to perform LAT maneuvering, e.g. ridges, valleys, open areas and easily identifiable terrain features. The pilot shall conduct this sortie from the left seat.

Performance Standard. Proper performance of all LAT and threat reaction maneuvers to include proper CRM.

Prerequisite. TACNAV-221, RQD-620, TACNAV-320, THRX(I)-261

Ordnance. N/A.

External Syllabus Support. LAT approved MTR or training area.

TACNAV-322 2.0 SC,R 1 KC-130 A

Goal. Review the pilot's ability to perform all LAT procedures.

Requirements. This is the LAT Qualification checkride, and shall be administered by a LATI. Upon successful completion of this flight the pilot should log the RQD-621 tracking code. The pilot will plan and execute a low level ingress to an objective and apply LAT maneuvers where applicable. A threat scenario is required with detailed brief on ASE loadout, threat capabilities and limitations, and threat counter tactics. Low level shall terminate in simulated or actual objective area.

Performance Standard. Arrive over the objective plus or minus 30 seconds and demonstrate an ability to control the aircrafts ground track, as well as perform LAT and threat reaction maneuvers.

Prerequisite. TACNAV-321.

Ordnance. N/A

External Syllabus Support. LAT approved MTR or training area.

TACNAV-323 2.0 SC 1 KC-130 A NS

Goal. Introduce the pilot to left seat, low level navigation at night under high light conditions.

Requirement. The initial event shall be instructed by a WTI or NSI. Plan and execute a VFR navigation route, consisting of at least 6 points, on a published MTR. Emphasis shall be on aircraft vector control, terrain clearance, CRM and tactical piloting while utilizing NVGs. This event should terminate with a TOT and actual or simulated actions in an objective area (AD, ALZ, ARCP).

Performance Standard. Arrive over the objective plus or minus 30 seconds properly configured, demonstrate an understanding of terrain masking, timing corrections and chart to ground interpretation, and NVG considerations/hazards.

Prerequisite. TACNAV-223, TACNAV-320, FAM-303.

Ordnance. N/A

External Syllabus Support. Approved MTR or training area.

TACNAV-324 2.0 SC,R 1 KC-130 NS

Goal. Introduce the pilot to left seat, low level navigation at night under low light conditions.

Requirement. The initial event shall be instructed by a WTI or NSI. Plan and execute a VFR navigation route, consisting of at least 6 points, on a published MTR. Emphasis shall be on aircraft vector control, terrain clearance, CRM and tactical pilotage while utilizing NVGs. This event should terminate with a TOT and actual or simulated actions in an objective area (AD, ALZ, ARCP).

Performance Standard. Arrive over the objective plus or minus 30 seconds properly configures. Demonstrate an understanding of terrain masking, timing corrections and chart to ground interpretation, and NVG considerations/hazards.

Prerequisite. TACNAV-224, TACNAV-320, FAM-303.

Ordnance. N/A

External Syllabus Support. Approved MTR or training area.

6. Formation

a. Purpose. To train the pilot in left seat (pilot-flying) KC-130 formation wingman flight techniques and procedures.

b. General. The Core Advanced formation syllabus is designed to introduce the pilot to formation tactics, techniques and procedures (TTPs) as a wingman in a flight of two or more KC-130s.

(1) Upon completion of this stage, the pilot will be capable of flying day or night formation in either the left or right seat.

(2) The focus of formation training should be on operational employment; maintaining formation as part of a tanker cell. This includes mission/fuel planning, inter-flight communications, departure and recovery procedures, and planned and inadvertent weather penetrations.

(3) For initial night systems formation training, a NSI is required if the pilot is not NSQ.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. The pilot shall review the KC-130 TACMAN/NTTP Formation chapter, and the KC-130 formation AAR procedures as defined in the NATOPS AAR Manual.

e. Flight and Simulator Training (4 Events, 9.0 Hours)

FORM-330 2.0 SC,R 2+ KC-130 A

Goal. Train the pilot to fly proper KC-130 day formation positions and procedures.

Requirement. Initial event shall be instructed by T&R Instructor. The initial flight should be flown as a section. If flown as a division then the initial event shall begin in the dash 2 position. The instructor shall introduce proper start, taxi, runup, takeoff, recovery, and landing procedures in a formation. Introduce day section formation positions and procedures. The pilot shall complete 3 break-up and rendezvous' and 1 lead change, and should conduct the formation mission brief.

Performance Standard. The pilot shall be capable of applying proper corrective control inputs to establish and maintain formation positions.

Prerequisite. FORM-231, FAM-301.

Ordnance. N/A

External Syllabus Support. MOA or appropriate training area.

FORM-331 2.0 2+ KC-130 A NS

Goal. Train the pilot to fly proper KC-130 NVG formation positions and procedures.

Requirement. Initial event shall be instructed by T&R Instructor. The initial flight should be flown as a section. If flown as a division then the initial event shall begin in the dash 2 position. The pilot shall practice proper start, taxi, runup, takeoff, recovery, and landing procedures in a formation. Introduce NVG section formation positions and procedures. The pilot shall complete 3 break-up and rendezvous' and 1 lead change, and should conduct the formation mission brief.

Performance Standard. The pilot shall be capable of applying proper corrective control inputs to establish and maintain formation positions. The pilot shall demonstrate a knowledge of KC-130 formation TTPs and NVG considerations.

Prerequisite. FORM-330.

Ordnance. N/A

External Syllabus Support. MOA or approved training area.

FORM-332 4.0 SC 3+ KC-130 A (N) (NS)

Goal. Train the pilot to fly proper KC-130 division formation positions and procedures.

Requirement. Initial event shall be instructed by T&R Instructor. The pilot shall fly initial event in the left

seat. This sortie may be flown in conjunction with FORM-331 or 332.

Performance Standard. The pilot shall be capable of applying proper corrective control inputs to establish and maintain dash 3 or 4 formation positions. The pilot shall demonstrate a knowledge of KC-130 division formation considerations.

Prerequisite. FORM-330, FORM-331 (if NVG), FORM-430 (if unaided).

Ordnance. N/A

External Syllabus Support. MOA or approved training area.

FORMAR-333 4.0 2+ KC-130 A (N) (NS)

Goal. Train the pilot in formation aerial refueling procedures.

Requirement. Initial event shall be instructed by T&R Instructor. The instructor shall introduce the formation aerial refueling brief, tanker/receiver fuel planning considerations, receiver management and movement around the refueling formation, and proper formation aerial refueling communications procedures. If applicable, review proper NVG equipment use and procedures.

Performance Standard. The pilot shall be capable of applying proper corrective control inputs to establish and maintain dash 3 or 4 formation positions. The pilot shall demonstrate a knowledge of KC-130 division formation considerations.

Prerequisite. Day: AR-310 (AR-311 for RWAR), FORM-330 (FORM-332 if in division).
NVG: AR-310 (AR-313 for RWAR), FORM-331 (FORM-332 if in division).
Unaided: AR-310 (AR-413 for RWAR), FORM-430 (FORM-332 if in division).

Ordnance. N/A

External Syllabus Support. Receiver aircraft.

7. Aerial Delivery (AD)

a. Purpose. Introduce the pilot to left seat (pilot-flying) duties and procedures involved in KC-130 AD operations.

b. General

(1) The Core Advanced AD syllabus is designed to introduce pilot techniques in cargo or personnel air delivery operations.

(2) Upon completion of this stage of instruction, the pilot shall be capable of flying in either the left or right seat when conducting heavy equipment (HE), container delivery system (CDS), personnel static line and combination airdrops.

(3) When conducting an AD in conjunction with a low level ingress, the pilot shall be qualified to fly that particular profile or must fly with

the appropriate instructor for that event. Initial AD sorties flown in conjunction with initial TACNAV sorties are permitted, provided all instructor requirements are met.

(4) For initial night systems AD training, an NSI is required if the pilot is not NSQ.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

e. Ground/Academic Training. Review KC-130 TACMAN/NTTP Air Delivery chapter and KC-130 TPG. Review MAWTS-1 AD courseware.

f. Flight and Simulator Training (2 Events, 4.0 Hours)

AD-340 2.0 SC,R 1 KC-130 A

Goal. Train and evaluate the pilot in day left seat air delivery procedures.

Requirement. The initial event shall be flown from the left seat and instructed by a T&R instructor. Review personnel, CDS and HE aerial delivery procedures. The pilot shall display a sound working knowledge of administrative and logistical requirements associated with DZ coordination and aircraft rigging (load certification). The pilot shall demonstrate the ability to fly the ingress, objective area profile and manage checklists for AD procedures. Emphasis should be placed on CRM and AD procedures. An actual personnel or cargo AD is required for initial qualification.

Performance Standard. Safely perform AD that lands within the drop zone.

Prerequisite. FAM-201, 301, AD-241.

Ordnance. N/A

External Syllabus Support. AD unit of any service for cargo rigging and DZ control.

AD-341 2.0 SC 1 KC-130 A NS

Goal. Train and evaluate the pilot in left seat AD procedures utilizing NVGs.

Requirement. The initial event shall be flown from the left seat and instructed by a NSI or WTI. Review personnel and CDS aerial delivery procedures. Emphasize CRM and AD procedures. The pilot shall demonstrate the ability to fly the ingress, brief objective area profile and manage checklists for AD procedures while utilizing NVGs. The pilot should display a sound working knowledge of administrative and logistical requirements associated with DZ coordination and aircraft rigging (load certification). An actual personnel or cargo AD is required for initial qualification.

Performance Standard. Safely perform AD that lands within the drop zone safety criteria.

Prerequisite. NS-303, AD-242, AD-340.

Ordnance. N/A.

External Syllabus Support. AD unit of any service for cargo rigging and DZ control.

8. Threat Reaction

a. Purpose. Train the pilot in the use of ASE and threat counter-tactics in a RADAR threat environment.

b. General

(1) Pilots shall review the KC-130FRT ASE suite and mission planning considerations for RADAR SAM defense. The sortie should focus on aircrew immediate action drills when confronted with RADAR threat systems. An aircraft with a functional ASE suite is required for the flight event.

(2) Upon completion of this phase, the pilot will be familiar with the mission planning and operational considerations associated with the ASE suite, chaff and flare requirements, and tactical CRM.

(3) The use of emitters for this stage is required. Aircrew training officers may have to be creative in gaining the best possible training due to the limited availability of expendables and ranges.

(4) Simulator events may be waived in the absence of a suitable device. Flight events may be conducted in the simulator if no suitable ranges or threat emitters are available.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Academic/Ground Training. Review the NFM, KC-130 TACMAN/NTTP, Classified TACMAN/NTTP, AFTTP 3-1 Threat Reference Guide. Review the KC-130 ASE, DEFTAC/ACCT, Stress and Performance Limitations and Threat Counter-tactics classes from the MAWTS-1 KC-130 Specific ASP.

e. Flight and Simulator Training (2 Events, 4.0 Hours)

STHRX(R)-360 3.0 SC 1 WST S

Goal. Introduce surface RADAR threat.

Requirement. Introduce the ASE RADAR Warning Receiver (RWR), symbology, and CMDS programmer. Conduct multiple passes against simulated RADAR threat systems (from acquisition, through target tracking to launch) and initiate appropriate maneuvers and countermeasures. Threat reaction maneuvering should include low and medium altitude flight profiles. IR threat reaction shall also be reviewed during this event. In the event that a simulator is not available, this event is optional.

Performance Standard. The pilot shall demonstrate the ability to properly defend against RADAR acquisition, target tracking and launch sequences.

Prerequisite. SFAM-300, STACNAV-222, THRX(I)-261.

Ordnance. N/A.

External Syllabus Support. CSI.

THRX(R)-361 2.0 SC,R 1 KC-130J/WST A/S

Goal. Introduce surface RADAR threat during a tactical mission profile.

Requirement. Initial event shall be instructed by a LATI. Practice maneuvering the aircraft against surface-based threat emitters utilizing the RWR, and CMDS in conjunction with a tactical mission profile. Conduct multiple passes against simulated RADAR threat systems (from acquisition, through target tracking to launch) and initiate appropriate maneuvers and countermeasures. Emphasis should be placed on configuration of the system for operations in a RADAR threat environment and CRM. IR threat reaction shall also be practiced during this event. This event may be conducted in a simulator if suitable emitter ranges or ASE equipped aircraft are not available.

Performance Standard. The pilot shall demonstrate the ability to properly configure the CMDS for operations in a RADAR threat environment, and defend against RADAR acquisition, target tracking and launch sequences.

Prerequisite. STACNAV-222, STHRX(I)-260, STHRX(R)-360.

Ordnance. 160 chaff, 140 flare.

External Syllabus Support. Approved emitter range or Restricted area with mobile emitters available.

9. Assault Landing Zone Operations

a. Purpose. Introduce the pilot to left seat (pilot-flying) duties associated with assault landing zone operations.

b. General

(1) The pilot shall be introduced to day, night and NVG ALZ operations with an emphasis on visual and self-contained approach procedures, precision landings to short fields prepared by Mobile MATC Teams (MMT), and ground operating procedures.

(2) Upon completion of this phase the pilot will be qualified to fly in the left or right seat during day or night, NVG assault landing zone operations.

(3) Initial ALZ events shall be instructed by either a WTI or NSI.

(4) For the purposes of this training syllabus, ALZ operations are defined as terminal area operations from an airfield prepared with either day of night EAF markings as defined in the KC-130 TACMAN/NTTP. Ideally, the MMT will be utilized for terminal control with tactical NAVAIDS available. A KC-130 capable unimproved assault landing zone is recommended, but not required.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Academic/Ground Training. Pilots should review the KC-130 TACMAN/NTTP ALZ and RGR chapters, maximum effort performance calculations in the KC-130

NFM, and the ALZ class in the MAWTS-1 KC-130 Specific ASP.

e. Flight and Simulator Training (3 Events, 6.0 Hours)

ALZ-370 2.0 SC R 1 KC-130 A

Goal. Train the pilot to fly day assault landing zone operations.

Requirement. The initial event shall be instructed by WTI or ANI and flown by the pilot from the left seat. The pilot shall conduct the ALZ mission brief and prepare a TOLD card for the mission IAW the NFM. The instructor shall introduce max effort takeoff and landing procedures, ALZ approaches (self-contained and random), and unimproved EAF ground operating and taxi procedures. A minimum of 1 max-effort take-off/full-stop and 4 touch and goes shall be completed. Tactical checklists should be practiced and CRM emphasized during this event. A simulated or actual COL shall be conducted.

Performance Standard. The pilot shall consistently land with the 500' touchdown zone, and demonstrate the situational awareness to manage crew duties on approach to an ALZ and during departure.

Prerequisite. ALZ-271.

Ordnance. N/A

External Support. Standard USMC ALZ day panel setup utilizing AMP-1, 2 or 3 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

ALZ-371 2.0 SC 1 KC-130 A NS

Goal. Train the pilot to fly NVG HLL assault landing zone operations.

Requirement. The initial event shall be instructed by ANI, WTI or NSI and flown by the pilot from the left seat. The pilot shall conduct the ALZ mission brief and prepare a TOLD card for the mission IAW the NFM. The instructor shall introduce HLL max effort takeoff and landing procedures, ALZ approaches (self-contained and random), and practice unimproved EAF ground operating and taxi procedures. A minimum of 1 max-effort take-off/full-stop and 4 touch and goes shall be completed. NVG ALZ considerations/procedures and tactical checklists (max-effort, COL) should be reviewed. CRM shall be emphasized during this event. COL is optional.

Performance Standard. The pilot shall consistently land within the 500' touchdown zone, and demonstrate the situational awareness to manage crew duties on approach to an ALZ and during departure.

Prerequisite. ALZ-272, ALZ-370.

Ordnance. N/A

External Support. Standard USMC ALZ IR lighting setup utilizing AMP-1 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

ALZ-372 2.0 SC 1 KC-130 A NS

Goal. Train the pilot to fly NVG LLL assault landing zone operations.

Requirement. The initial event shall be instructed by ANI, WTI or NSI and flown by the pilot from the left seat. The pilot shall conduct the ALZ mission brief and prepare a TOLD card for the mission IAW the NFM. The pilot shall practice LLL max effort takeoff and landing procedures, self-contained ALZ approaches, and practice unimproved EAF ground operating and taxi procedures. A minimum of 1 max-effort take-off/full-stop and 4 touch and goes shall be completed. NVG LLL ALZ considerations/procedures and tactical checklists should be reviewed. CRM shall be emphasized during this event. COL is optional.

Performance Standard. The pilot shall consistently land within the 500' touchdown zone, and demonstrate the situational awareness to manage crew duties on approach to an ALZ and during departure.

Prerequisite. ALZ-272, ALZ-371.

Ordnance. N/A

External Support. Standard USMC ALZ IR lighting setup utilizing AMP-1 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

134. CORE PLUS TRAINING

1. General

a. The Core Plus phase contains advanced AD, long-range overwater AAR, formation low level and Air-to-Air Defensive Tactics events. Additionally, Core Basic and Core Advanced non-NVG events are contained in this phase as they can generally be categorized as high-risk, low probability of execution.

b. Upon completion of this phase of training, the pilot will be qualified to plan and execute long range refueling operations, conduct high altitude freefall personnel AD, Battlefield Illumination (BI), and formation low level operations.

c. Depending on NVIS aircraft availability, pilots may complete a non-NVG core skill event (such as RWAR or ALZ) prior to completing the NVG equivalent. In these cases, the day sortie is required to be completed first and the unaided event will not chain the uncompleted NVG event. The equivalent day event will be chained.

d. During night unaided operations, the use of NVGs in the hand-held mode by the pilot not flying and other crew members is recommended in order to increase situational awareness.

2. Air Refueling

a. Purpose. To gain and maintain the capability to execute RWAR missions using non-NVIS aircraft.

b. General. Upon completion of this phase, the pilot will be qualified to fly unaided AAR missions in the appropriately designated crew position.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events to include one observer per operated aerial refueling pod.

d. Ground/Academic Training. See Core Basic and Core Advanced stages.

e. Flight and Simulator Training (5 Events, 11.0 Hours)

AR-413 3.0 SC 1 KC-130 N

Goal. Introduce the pilot to unaided single tanker, rotary-wing AAR procedures.

Requirement. The initial event shall be instructed by a T&R instructor and flown by the pilot in the left seat. The instructor shall introduce unaided rendezvous procedures and the pilot shall conduct a minimum of three rendezvous'. This sortie will focus on receiver management, communications, checklist execution from initial check-in through completion of AAR. Use of EMCON procedures is not recommended. Emphasize unaided considerations to include visual illusions, altitude separation requirements, use of TACAN A/A and heading calls, and aircraft lighting.

Performance Standard. Safely conduct a rendezvous with receiver aircraft, adhering to altitude separation requirements and closure rates. Satisfactorily demonstrate the ability to effect the rendezvous, maintain a stable platform, maintain fuel planning awareness and receiver management. Additionally, demonstrate knowledge of normal and emergency procedures outlined in the NFM, AAR Manual and KC-130 TACMAN.

Prerequisite. AR-212 (Right Seat), AR-312 (Left Seat).

Ordnance. N/A

External Syllabus Support. Rotary-wing receiver aircraft.

3. Long-Range Aerial Refueling.

a. Purpose. To attain and maintain the long range aerial refueling Core Plus skill. Upon completion of this phase, the pilot will be capable of planning and executing long range FW/TR/RW AAR operations.

b. General

(1) The ability to plan a long range movement of receiver aircraft must be maintained at a minimum level within fleet squadrons. This event should be completed in conjunction with FORMAR-333. The event should include enroute refueling operations utilizing a rendezvous controller, ALTRVs, abort points, and pathfinders.

(2) This event is a prerequisite for the Strategic RAC Designation RQD-637.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events to include one observer per operated aerial refueling pod.

d. Ground/Academic Training. Review the MAWTS-1 Tactical AAR Courseware. Review NFM, and NATOPS Air-to-Air Refueling Manual concerning long-range refueling operations.

e. Flight and Simulator Training (1 Flight, 6.0 Hours)

AR-493 6.0 2-4 KC-130 A (N)

Goal. Introduce Long Range AAR operations.

Requirement. Conduct long range FW/TR/RW aerial refueling. Both tanker and receiver performance data and fuel requirements must be planned. PFPS should be used for mission planning. Discuss and introduce coordination of movement control, ALTRVs, abort criteria, hose factor, contingency planning, RAC functions, rendezvous control and pathfinding. Review radio procedures, NAVAID/RADAR/TCAS procedures, tanker/receiver management and emergency procedures related to AAR.

Performance Standard. Successfully complete the planning and execution phase of a LRAAR movement of receiver aircraft.

Prerequisite. FORM-330, AR-311 (FWAR), AR-312 (RWAR).

Ordnance. N/A

External Support. Receiver cell, Central Altitude Reservation Facility (CARF).

4. Tactical Navigation

a. Purpose. To train the pilot in section TACNAV, section LAT and unaided low level procedures.

b. General. Upon completion of this stage, the pilot shall be capable of conducting day and NVG section low level and day section LAT. Emphasize low altitude formation techniques, formation control, tactical formations and mutual support in a low to medium threat environment.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. Review the Formation, Low Level Navigation and LAT Chapters of the KC-130 TACMAN/NTTP. Review the LAT 1, LAT 2, LAT Maneuvering, and KC-130 Stress and Performance Limitations. These courses can be found in the MAWTS-1 KC-130 Specific Academic Support Package.

e. Flight and Simulator Events Training (4 Events, 8.0 Hours)

TACNAV-420 2.0 2 KC-130 A

Goal. Introduce the pilot to formation low level procedures.

Requirement. The initial event shall be instructed by a T&R Instructor. This sortie shall be flown as a section. Plan and execute a VFR navigation route, consisting of at least 6 points. The pilot shall fly as wingman. Emphasis shall be on terrain clearance and tactical formation positions, and mutual support. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop or self-contained approach). The pilot shall conduct this sortie from the left seat.

Performance Standard. Demonstrate an ability to fly a tactical formation while maintaining terrain clearance in the low level environment.

Prerequisite. TACNAV-320, FORM-330.

Ordnance. N/A

External Syllabus Support. Approved MTR or training area.

TACNAV-421 2.0 2 KC-130 A

Goal. Introduce the pilot to formation LAT procedures.

Requirements. The initial event shall be instructed by a LAT I. This sortie shall be flown as dash 2 of a section. Introduce flying at comfort level, terrain masking, ridgeline crossing, lookout doctrine, hard turns, break turns, bunts, jinks and IR threat reaction maneuvers from the wingman position. The route flown should be one that affords the opportunity to perform LAT maneuvering, e.g. ridges, valleys, open areas and easily identifiable terrain features. The pilot will conduct this sortie from the left seat.

Performance Standard. Demonstrate an ability to fly a tactical formation while maintaining terrain clearance in the LAT environment.

Prerequisite. TACNAV-322, FORM-330, TACNAV-420.

Ordnance. N/A

External Syllabus Support. Approved MTR or training area.

TACNAV-422 2.0 SC 1 KC-130 N

Goal. Introduce the pilot to unaided low level navigation procedures.

Requirements. The initial event shall be instructed by a WTI or NSI. Plan and execute a VFR navigation route, consisting of at least 6 points. Emphasis shall be on terrain clearance, MSAs, electronic terrain identification, CRM, and tactical piloting. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop, self-contained approach or RWAAR track). The TSO shall be the primary navigator. The pilot may conduct this sortie from the either seat. Hand-held NVGs are recommended for the pilot-not-flying.

Performance Standard. Arrive over the objective plus or minus 30 seconds and demonstrate an ability to identify terrain using radar and hand held NVG's as well as understanding of timing corrections and chart to ground interpretation.

Prerequisite. TACNAV-220 (Right Seat), TACNAV-320 (Left Seat)

Ordnance. N/A

External Syllabus Support. Approved MTR or training area.

TACNAV 423 2.0 SC R 2 KC-130 NS

Goal. Introduce the pilot to NVG low altitude formation procedures.

Requirements. The initial event shall be instructed by a WTI or NSI. This sortie shall be flown as a section. Plan and execute a VFR navigation route, consisting of at least 6 points. Emphasis shall be on terrain clearance, NVG external lighting considerations, CRM, aircraft and formation positioning, and tactical piloting. The route should terminate in an actual or simulated objective area requiring actions from IP inbound (either to a simulated airdrop, self-contained approach or RWAAR track). The TSO shall be the primary navigator. The pilot will conduct this sortie from the either seat.

Prerequisite. FORM-232, TACNAV-323 (for HLL), TACNAV-224 (for LLL)

Performance Standard. Demonstrate an ability to fly a tactical formation while maintaining terrain clearance in the NVG low level environment.

Ordnance. N/A

External Syllabus Support. Approved MTR or training area.

5. Formation

a. Purpose. To train the pilot in unaided KC-130 formation wingman flight techniques and procedures.

b. General. Upon completion of this phase, the pilot will be qualified to fly unaided formation missions in the appropriately designated crew position.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. The pilot shall review the KC-130 TACMAN/NTTP Formation chapter, and the KC-130 formation AAR procedures as defined in the NATOPS AAR Manual.

e. Flight and Simulator Training (1 Event, 2.0 Hours)

FORM-430 2.0 2+ KC-130 A N

Goal. Train the pilot in night unaided formation procedures.

Requirement. Initial event shall be instructed by a T&R I. The pilot shall fly the initial event in the left seat. Flight should be flown as a section. If not flown as a section then the initial event shall begin in the dash 2 position. Introduce night unaided formation positions and procedures. The pilot shall conduct the formation mission brief and review proper start, taxi, runup, takeoff, recovery, and landing procedures in a formation. Practice minimum of 3 break-up and rendezvous and 1 lead change. Review proper management of all comm/nav equipment as associated with formation flight and review proper formation communications procedures.

Performance Standards. The pilot should be capable of applying proper corrective control inputs to establish and maintain formation positions. The pilot shall demonstrate a knowledge of KC-130 formation TTPs and unaided considerations.

Prerequisite. FORM-330, (FORM-332 if in division).

Ordnance. N/A

External Syllabus Support. MOA.

6. Air Delivery (AD)

a. Purpose. The purpose of the Core Plus AD stage is to train the pilot in unaided AD, high altitude military freefall operations and battlefield illumination.

b. General

(1) Upon completion of this stage of instruction, the pilot shall be capable of conducting unaided cargo and personnel AD, high altitude military freefall and battlefield illumination missions.

(2) Prior to conducting AD-442 and 444, the pilot must be qualified in the equivalent Core Basic or Core Advanced AD event. For instance, if a pilot is going to conduct a night military freefall on NVGs from the left seat, then the AD-341 (left seat NS AD) must be complete.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. Review KC-130 TACMAN/NTTP Air Delivery chapter and KC-130 TPG. Review MAWTS-1 AD courseware and OPNAV 3710 altitude requirements.

e. Flight and Simulator Training (3 Events, 6.0 Hours)

AD-440 2.0 SC 1 KC-130 A N

Goal. Train the pilot in unaided cargo/personnel AD procedures.

Requirement. The event may be flown from the left or right seat and shall be instructed by a NSI or WTI. Fly an air delivery mission consisting of CDS, heavy equipment, or personnel static line. If utilizing a low level navigation route, perform a modified slowdown tactic from IP inbound. Emphasis will be on low level navigation, checklist

procedures, and CRM. Review personnel and CDS aerial delivery procedures. An actual personnel/cargo AD is required for initial qualification.

Performance Standard. Correctly identify the zone and safely perform AD that lands within the drop zone.

Prerequisite. FAM-202, AD-241 (Right seat), FAM-301, AD-340 (Left seat).

Ordnance. N/A

External Support. AD unit of any service for cargo rigging and DZ control.

AD-442 2.0 1 KC-130 A (N) (NS)

Goal. Train and evaluate the pilot in day, night (NS optional) personnel high altitude air delivery procedures.

Requirement. The event may be flown from the left or right seat and shall be instructed by an NSI or WTI. Review personnel AD procedures and oxygen requirements for high altitude AD operations. Emphasis should be placed on crew and jumpmaster coordination. An actual personnel AD is required for initial qualification.

Performance Standard. Correctly identify the zone and safely perform air delivery that lands within the drop zone safety criteria.

Prerequisite. Right Seat: FAM-202 (NS-204,205 if aided)
Left seat: FAM-302 (NS-303 if aided)

Ordnance. N/A.

External Support. AD unit of any service for cargo rigging and DZ control.

AD-444 2.0 1 KC-130 A N (NS)

Goal. Train the pilot in night (NS optional) area illumination procedures.

Requirement. The event may be flown from the left or right seat and shall be instructed by a T&R I. Introduce battlefield illumination procedures. Emphasis should be placed on flare settings, illumination patterns, conduct of a 9-Line brief and emergency procedures. An actual expenditure of ordnance is required.

Performance Standard. Demonstrate knowledge of immediate action emergency procedures, and accurately fly the correct pattern for the type of illumination requested.

Prerequisite. Right Seat: FAM-202 (NS-204,205 if aided).
Left seat: FAM-302 (NS-303 if aided).

Ordnance. 15 LUU-2A/B,B/B or LUU-19 flares as required.

External Support. Approved range for illumination.

7. Defensive Tactics

a. Purpose. To train the pilot in the Core Plus Skill of employing Defensive Tactics against an air threat by combining maneuver and use of the ASE suite.

b. General

(1) Upon completion of this phase the pilot will be capable of employing defensive counter-tactics against an air threat.

(2) Use of the Rear Vision Device (RVD) and ASE suite is recommended.

(3) A DEFTAC(I) is required to fly with any non-qualified pilot or copilot.

(4) The DEFTAC qualification requirements consist of DEFTAC-462, DEFTAC-463, DEFTAC-464 and RQD-661. Upon successful completion of qualification requirements, pilots may be issued a DEFTAC qualification letter from the squadron commander and log the RQD-697 tracking code.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events. An additional member to utilize the RVD is recommended.

d. Academic/Ground Training. Review the KC-130 TACMAN/NTTP, Classified TACMAN/NTTP, AFTTP 3-1 Threat Reference Guide concerning air-to-air threats. Review the KC-130 ASE, DEFTAC/ACCT, Stress & Performance Limitations and Threat Counter-tactics classes from the MAWTS-1 KC-130 Specific ASP.

e. Flight Training (3 Events, 6.0 Hours)

DEFTAC-462 2.0 1 KC-130, 1 Adversary A

Goal. Train in defensive maneuvering in relation to an air-to-air threat. This sortie shall be flown as a 1 vs. 1.

Requirement. The DEFTAC I shall brief and introduce DEFTAC briefing requirements. Practice defensive maneuvers with emphasis on hard turns, break turns, maneuvering velocity, one-circle/two-circle fights and negating tracking solutions. The flight preparation for this event shall include threat analysis, ASE and expendable integration with regard to the threat, and a detailed aircrew brief on threat reaction throughout all phases of an attack. CRM shall be emphasized to include incorporation of the RVD, aircrew lookout doctrine/scan sectors and threat call template. An event debrief with the aggressor pilot is recommended.

Performance Standard. Pilot should demonstrate a knowledge of A/A RADAR, A/A gun and IR missile defense and one-circle/two-circle considerations.

Prerequisite. RQD-621, THRX-360.

Ordnance. 140 flares, 160 chaff.

External Support. Single aggressor aircraft and approved airspace.

DEFTAC-463 2.0 1 KC-130, 2 Adversaries A

Goal. Train in defensive maneuvering in relation to an air-to-air threat. This sortie shall be flow as a 1 vs. 2.

Requirement. Practice defensive maneuvers with emphasis on hard turns, break turns, maneuvering velocity, one-circle/two-circle fights and negating tracking solutions. The flight preparation for this event shall include threat analysis, ASE and expendable integration with regard to the threat, and a detailed aircrew brief on threat reaction throughout all phases of an attack by a bogey section. CRM shall be emphasized to include incorporation of the RVD, aircrew lookout doctrine/scan sectors, threat call template and honoring the nearest threat. An event debrief with the aggressor flight lead is recommended.

Performance Standard. Pilot should demonstrate knowledge of A/A RADAR, A/A gun and IR missile defense, one-circle/two-circle considerations and honoring the nearest threat.

Prerequisite. DEFTAC-462.

Ordnance. 140 flares, 160 chaff.

External Support. Two aggressor aircraft and approved airspace.

DEFTAC-464 2.0 SC, R 1 KC-130, 1 or 2 Adversaries A

Goal. Qualify in defensive maneuvering in relation to an air-to-air threat. This sortie shall be flown as a 1 vs. 1 or 1 vs. 2.

Requirement. Practice defensive maneuvers with emphasis on hard turns, break turns, maneuvering velocity, one-circle/two-circle fights and negating tracking solutions. The pilot shall review threat analysis, ASE and expendable integration with regard to the threat, and a detailed aircrew brief on threat reaction throughout all phases of an attack. CRM shall be briefed by the pilot to include incorporation of the RVD, aircrew lookout doctrine/scan sectors, threat call template and honoring the nearest threat. An event debrief with the aggressor flight lead is recommended. RQD-661 shall be logged upon completion of this event.

Performance Standard. Pilot should demonstrate the ability to conduct defensive maneuvers while simultaneously orchestrating the crew’s actions against an A/A threat.

Prerequisite. DEFTAC-463.

Ordnance. 140 flares, 160 chaff.

External Support. Single or section of aggressor aircraft and approved airspace.

8. Assault Landing Zone Operations

a. Purpose. Introduce the pilot to unaided and unimproved surface ALZs.

b. General

(1) It is recommended that the Core Basic and Core Advanced skills be flown in an unimproved ALZ environment. This stage provides for the training of a pilot in the unique environment of an austere or expeditionary airfield. Dirt, grass, coral or any other unimproved surface requiring footprint loading analysis should be considered unimproved ALZs. This stage also introduces the pilot to unaided ALZ procedures.

(2) Emphasis in this stage is to introduce operating procedures designed to increase safety and reduce the wear on the aircraft, footprint loading techniques, and airfield suitability services within the Marine Corps and DOD.

(3) Upon completion of this stage, the pilot will have an appreciation for KC-130 ALZ planning considerations and will be capable of conducting operations from an unimproved ALZ.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Academic/Ground Training. Pilots should review the KC-130 TACMAN/NTTP ALZ and RGR chapters, maximum effort performance calculations in the KC-130 NFM, and the ALZ class in the MAWTS-1 KC-130 Specific ASP.

e. Flight and Simulator Training (1 Flight, 2.0 Hours)

ALZ-470 2.0 1 KC-130 A (N)

Goal. Train the pilot to conduct flight operations at unimproved ALZ.

Requirement. The initial event shall be instructed by an ANI, WTI or NSI and flown by the pilot from the left seat. The instructor shall review airfield assessment services available in the from the MWSS, and DOD. Discuss footprint loading/ground flotation determination and impacts on KC-130 operations. The pilot shall conduct the ALZ mission brief and prepare a TOLD card for the mission IAW the NFM. The instructor shall introduce austere airfield ground and taxi procedures, max effort takeoff and landing procedures from an unimproved surface, and review ALZ approaches. Tactical checklists should be practiced and CRM emphasized during this event. A simulated or actual COL should be conducted during this event.

Performance Standard. The pilot shall consistently land within the 500’ touchdown zone, and demonstrate the situational awareness to manage crew duties on approach to an ALZ and during departure.

Prerequisite. This event may be flown concurrently with any Core Basic or Core Advanced ALZ event.

Ordnance. N/A

External Support. Standard USMC ALZ day or night panel setup

utilizing AMP-1, 2 or 3 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

ALZ-471 2.0 SC, R 1 KC-130 A N

Goal. Train the pilot to fly unaided ALZ operations.

Requirement. Initial event shall be instructed by ANI, WTI. The pilot shall fly in the right or left seat. Instructor shall demonstrate unaided max effort takeoff and landing procedures and unaided ALZ approaches for T3Ps. Pilots in the left seat shall conduct ALZ mission brief, prepare a TOLD card for the mission IAW NFM, discuss unaided ALZ/EAF operating procedures, practice tactical checklists, practice unaided CRM, and conduct a minimum of 1 max effort takeoff, 4 max effort T&Gs, and 1 max effort landing.

Performance Standards. The pilot shall consistently land within the 500' touchdown zone, and demonstrate the situational awareness to manage crew duties on approach to an ALZ and during departure.

Prerequisite. ALZ-370.

Ordnance. N/A.

External Support. Standard USMC ALZ normal lighting setup utilizing AMP-1, 2 or 3 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

140. INSTRUCTOR TRAINING

1. Purpose. The purpose of this phase of training is to train qualified pilots to instruct various stages within the Core Introduction, Core Basic, Core Advanced and Core Plus phases.

2. General. Pilots shall be recommended for instructor designation via Aircrew Performance Review Board (APRB). Upon recommendation, the pilot shall complete appropriate syllabus requirements and be designated by the commanding officer. Standardization shall be emphasized throughout this phase.

3. Core Skill Introduction Stage Instructor

a. Purpose. Train the pilot as a Core Skill Introduction Stage Instructor. These instructors are primarily utilized at the Fleet Replacement Squadron (FRS). Tactical squadrons may utilize Stage Instructors at the discretion of the commanding officer.

b. Flight and Simulator Event Training (15 Events, 32.0 Hours)

SFAM-500 2.0 E OFT/WST S

Goal. Train IUT as a Core Introduction phase FAM/INST Instructor.

Requirement. IUT in the right seat shall practice all FAM/INST procedures in Core Skill Advanced syllabus. IUT should demonstrate 3 engine and 2 engine landings from the right seat in order to prepare IUT to train Refresher pilots in the left seat.

Performance Standard. Per the NFM.

Prerequisite. Transport Plane Commander, APRB recommendation.

Ordnance. N/A

External Syllabus Support. CSI.

SFAM-501 2.0 E OFT/WST S

Goal. Train IUT as a Core Introduction phase FAM/INST Instructor.

Requirement. IUT shall demonstrate the ability to maintain a safe training environment while correcting common student errors as simulated by qualified instructor in right seat.

Performance Standard. Per the NFM.

Prerequisite. SFAM-500.

Ordnance. N/A

External Syllabus Support. CSI.

FAM-502 2.0 E 1 KC-130 A

Goal. Train IUT as a Core Introduction phase FAM/INST Instructor.

Requirement. IUT in the right seat shall practice all FAM/INST procedures in Core Skill Advanced syllabus. IUT should demonstrate 3 engine and 2 engine landings from the right seat in order to prepare to train Refresher pilots in the left seat.

Performance Standard. Per the NFM.

Prerequisite. SFAM-501.

Ordnance. N/A

External Syllabus Support. N/A

INST-503 2.0 E 1 KC-130 A

Goal. Train IUT as a Core Introduction phase FAM/INST Instructor.

Requirement. IUT shall demonstrate the ability to maintain a safe training environment while correcting common student errors as simulated by a qualified instructor in the right seat.

Performance Standard. Per the NFM.

Prerequisite. FAM-502.

Ordnance. N/A

External Syllabus Support. N/A

INST-504 3.0 E 1 KC-130 A

Goal. Qualify IUT as a Core Introduction phase FAM/INST Instructor.

Requirement. IUT in left seat shall conduct Core Skill Introduction FAM/INST training with a Replacement pilot in the right seat. The flight shall be supervised by qualified instructor FAM/INST I. Upon completion of this event, the pilot shall log RQD-688 and may be designated a FAM/INST Stage Instructor by the commanding officer.

Performance Standard. Per the NFM.

Prerequisite. INST-503.

Ordnance. N/A

External Syllabus Support. N/A

AR-510 3.0 E 1 KC-130 A

Goal. Train IUT as a Core Introduction phase AAR Instructor.

Requirement. The IUT shall practice AAR procedures in Core Skill Advanced syllabus. The IUT should demonstrate the ability to maintain a safe training environment while correcting common student errors as simulated by qualified instructor in right seat.

Performance Standard. Per the NFM and the AAR Manual.

Prerequisite. AR-310, Transport Plane Commander, APRB recommendation.

Ordnance. N/A

External Syllabus Support. Receiver aircraft.

AR-511 3.0 E 1 KC-130 A

Goal. Qualify IUT as a Core Introduction phase AAR Instructor.

Requirement. The IUT in left seat shall conduct Core Skill Introduction/Basic AAR training with a replacement pilot in right seat. Flight shall supervised by qualified instructor. Upon completion of this event, the pilot shall log RQD-689 and may be designated a AAR Stage Instructor by the commanding officer.

Performance Standard. Per the NFM and the AAR Manual.

Prerequisite. AR-510.

Ordnance. N/A

External Syllabus Support. Receiver aircraft.

TACNAV-512 2.0 E 1 KC-130 A

Goal. Train IUT as a Core Introduction phase TACNAV Instructor.

Requirement. The IUT shall practice TACNAV procedures in Core Skill Advanced syllabus. The IUT shall demonstrate the ability to maintain a safe training environment while correcting common student errors as simulated by qualified instructor in right seat.

Performance Standard. Per NFM and KC-130 TACMAN/NTTP.

Prerequisite. TACNAV-322, RQD-621, Transport Plane Commander, APRB recommendation.

Ordnance. N/A

External Syllabus Support. Approved MTR.

TACNAV-513 2.0 E 1 KC-130 A

Goal. Qualify IUT as a Core Introduction phase TACNAV Instructor.

Requirement. IUT in left seat shall conduct Core Skill Introduction/Basic TACNAV training with a Replacement Pilot in the right seat. The flight shall be supervised by qualified instructor. Upon completion of this event, the pilot shall log RQD-690 and may be designated a TACNAV Stage Instructor by the commanding officer.

Performance Standard. Per the NFM and KC-130 TACMAN/NTTP.

Prerequisite. TACNAV-512.

Ordnance. N/A

External Syllabus Support. Approved MTR.

FORM-514 2.0 E 2 KC-130 A

Goal. Train IUT as a Core Introduction phase Formation Instructor.

Requirement. The IUT shall practice FORM maneuvers in Core Skill Advanced syllabus. The IUT shall demonstrate the ability to maintain a safe training environment while correcting common student errors as simulated by qualified instructor in right seat.

Performance Standard. Per the NFM and KC-130 TACMAN/NTTP.

Prerequisite. RQD-631, APRB recommendation.

Ordnance. N/A

External Syllabus Support. MOA.

FORM-515 2.0 E 2 KC-130 A

Goal. Qualify IUT as a Core Introduction phase TACNAV Instructor.

Requirement. The IUT in left seat shall conduct Core Skill Introduction/Basic FORM training with the Replacement Pilot in the right seat. Flight shall be supervised by qualified instructor. Upon completion of this event, the pilot shall log RQD-691 and may be designated a FORM Stage Instructor by the commanding officer.

Performance Standard. Per the NFM and KC-130 TACMAN/NTTP.

Prerequisite. FORM-514.

Ordnance. N/A

External Syllabus Support. MOA.

AD-516 2.0 E 1 KC-130 A

Goal. Train IUT as a Core Introduction phase AD Instructor.

Requirement. The IUT shall practice AD procedures in Core skill Advanced syllabus. The IUT shall demonstrate the ability to maintain a safe training environment while correcting common student errors as simulated by qualified instructor in right seat.

Performance Standard. Safely perform AD that lands within the drop zone. An actual AD of cargo or personnel is required to complete this sortie.

Prerequisite. AD-340, Transport Plane Commander, APRB recommendation.

Ordnance. N/A

External Syllabus Support. AD unit of any service for cargo rigging and DZ control.

AD-517 2.0 E 1 KC-130 A

Goal. Qualify IUT as a Core Introduction phase AD Instructor.

Requirement. The IUT in left seat shall conduct Core Skill Introduction/Basic AD training with a Replacement Pilot in the right seat. The Flight shall be supervised by qualified instructor. Upon completion of this event, the pilot shall log RQD-692 and may be designated an AD Stage Instructor by the commanding officer.

Performance Standard. Safely perform AD that lands within the drop zone. An actual AD of cargo or personnel is required to complete this sortie.

Prerequisite. AD-516.

Ordnance. N/A

External Syllabus Support. Air delivery unit of any service for cargo rigging and DZ control.

ALZ-518 2.0 E 1 KC-130 A

Goal. Train IUT as a Core Introduction phase ALZ Instructor.

Requirement. The IUT shall practice ALZ procedures in Core Skill Advanced syllabus. The IUT shall demonstrate the ability to maintain a safe training environment while correcting common student errors as simulated by qualified instructor in right seat.

Performance Standard. Per the NFM and KC-130 TACMAN/NTTP.

Prerequisite. ALZ-370, Transport Plane Commander, APRB recommendation.

Ordnance. N/A

External Syllabus Support. Standard USMC ALZ day panel setup utilizing AMP-1 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

ALZ-519 2.0 E 1 KC-130 A

Goal. Qualify IUT as a Core Introduction phase ALZ Instructor.

Requirement. The IUT in left seat shall conduct Core Skill Introduction/Basic ALZ training with a Replacement Pilot in the right seat. The Flight shall be supervised by a qualified instructor. Upon completion of this event, the pilot shall log RQD-693 and may be designated an ALZ Stage Instructor by the commanding officer.

Performance Standard. Per the NFM and KC-130 TACMAN.

Prerequisite. ALZ-518.

Ordnance. N/A

External Syllabus Support. Standard USMC ALZ day panel setup utilizing AMP-1 markings. MMT or MWSS EAF personnel for terminal control, or USAF Special Tactics Team (SST).

4. Core Skill T&R Instructor

a. Purpose. Train the Fleet TPC to instruct select events within the Core Basic, Core Advanced and Core Plus phases. This is a basic instructor qualification that ensures instruction is standardized within fleet units at all levels.

b. General

(1) A prospective T&R instructor shall be a TPC that the APRB and commanding officer determine has the requisite airmanship and maturity to begin pilot instruction. The TPC shall be Core Advanced phase complete prior to being recommended by the APRB.

(2) The events a T&R instructor may instruct are delineated in the individual event descriptions but are generally limited to AAR, formation, and TACNAV (non-LAT events).

(3) The T&R Instructor designation requires only one event. However, commanding officers may elect to apply more stringent requirements to attain designation.

c. Crew requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. The IUT shall review all directives pertinent to the safe conduct of flight to include the OPNAV 3710, Instrument Flight Manual, AIM/FAR, NFM, all tactics publications and local SOPs. The IUT shall be familiar with the T&R Program Manual and this MCO.

e. Flight and Simulator Event Training (1 Event, 3.0 Hours).

TR-520 3.0 E 1 KC-130 A (N)

Goal. Qualify IUT as a T&R Instructor.

Requirement. This event shall be flown in conjunction with a Core Basic or Core Advanced event with the IUT instructing a pilot under the supervision of an qualified ANI or WTI. The IUT shall conduct the mission brief and execute the syllabus event in accordance with the event description. Upon completion of this event, the pilot shall log RQD-694 and may be designated a T&R instructor by the commanding officer.

Performance Standard. The IUT shall be evaluated on the ability to correctly brief the flight, demonstrate and introduce maneuvers in accordance with applicable directives, correct student deficiencies, conduct proper debrief and display appropriate subject matter expertise.

Prerequisite. Transport Plane Commander, APRB recommendation.

Ordnance. N/A

External Syllabus Support. See appropriate Core Basic or Core Advanced stage description.

5. NATOPS Instructor

a. Purpose. Qualify IUT as a NATOPS Instructor/Assistant NATOPS Instructor (NI/ANI).

b. General. The purpose of this stage is to qualify the IUT as a NATOPS instructor. The NI/ANI primarily conducts annual NATOPS and Instrument evaluations as well as administer the TPC Upgrade syllabus. The IUT shall be introduced to and practice compound aircraft emergencies from the right and left seat and shall be proficient in two-engine emergency operations. The IUT shall be instructed on proper check-ride preparation, in-flight supervision of the aircraft and pilot and post-flight administrative requirements.

c. Crew requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. The IUT shall be familiar with all applicable OPNAV and NATOPS directives, with an emphasis on instruction and NATOPS emergency procedures.

e. Flight and Simulator Training (1/1 Events, 3.0/3.0 Hours).

SNI-590 3.0 E OFT/WST S

Goal. Prepare the IUT for the ANI/NI Qualification. Standardize maneuver instruction.

Requirement. Introduce the IUT to the skills required to correct common student errors from the right seat. Shall be instructed by either ANI or NI or a qualified WST CSI. Emphasis shall be on 3 and 2-engine aircraft approaches and landings, instructional techniques, check-ride preparation, aircraft/pilot monitoring and post-check administrative duties.

Performance Standard. Satisfactory completion of events per the NFM.

Prerequisite. RQD-685, APRB recommended.

Ordnance. N/A.

External Syllabus Support. CSI or ANI/NI.

NI-591 3.0 E 1 KC-130 A

Goal. Qualify the IUT for the ANI/NI.

Requirement. Shall be instructed by a NI/ANI with the IUT in the right seat and the instructor in the left seat. Emphasis shall be on 3 and 2-engine aircraft approaches and landings in 50%, 100% and no-flap landing configurations. The IUT shall be evaluated on instructional technique, check-ride preparation, aircraft/pilot monitoring and post-check administrative duties. A minimum of one 2-engine, no flap landing from the right seat shall be demonstrated by the IUT. Upon completion of this event, the IUT shall log the RQD-695 and may be designated a NI/ANI by the commanding officer.

Performance Standard. The IUT shall demonstrate the skills required to perform required maneuvers correctly and correct common student errors while maintaining situational awareness and safe operating conditions.

Prerequisite. RQD-685, SNI-591, APRB recommended.

Ordnance. N/A.

External Syllabus Support. ANI/NI.

6. Low Altitude Tactics Instructor (LATI)

a. Purpose. Qualify the IUT as a LATI.

b. General

(1) Completion of the Core Advanced and Core Plus LAT syllabus is a prerequisite.

(2) The preparation stage shall be supervised by the Squadron LATI. During the LATI preparation stage, the squadron LATI shall demonstrate to the prospective LATI appropriate flight brief techniques, structure and objectives, and should highlight common errors in every maneuver. There should be particular emphasis in safety and adherence to the Rules of Conduct for all portions of LAT flight. The LAT IUT build-up syllabus codes are LAT-592, 593, 594.

(3) The certification flight is LAT-595. Upon certification by MAWTS-1 or the Squadron WTI, the IUT shall log RQD-696 and may be designated a LAT I by the squadron commanding officer.

(4) Currency in LAT is not required to maintain instructor designation. However, the LATI must satisfy 15 day currency requirements in order to instruct as a LATI. In instances where a disparity exists between the MAWTS-1 Course Catalog and the T&R Manual, the MAWTS-1 Course Catalog has precedence.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. Utilize academic courseware as outlined in the KC-130 Chapter of the MAWTS-1 Course Catalog.

(1) The IUT shall review and be capable of presenting the following lectures from the LAT Academic Support Package:

(a) LAT Part I: Philosophy and Concepts.

(b) LAT Part II: LAT Considerations.

(c) KC-130 LAT Maneuvering Considerations.

(2) LATI Certification. The LATI certification may be conducted by a KC-130 WTI pilot. The following evaluation sorties are required for LATI certification.

e. Flight Event Training (4 Events, 8.0 Hours)

LAT-530 2.0 E 1 KC-130 A

Goal. Re-establish currency and begin certification for the LAT IUT. Practice flying at comfort level, terrain masking, LAT maneuvers, and proper lookout doctrine.

Requirement. The IUT shall brief, instruct and debrief a low altitude flight on a low level route or closed course. Event description and requirements are the same as for TACNAV-321 except the sortie shall be flown with the IUT in the right seat.

Performance Standard. Per NFM, KC-130 TACMAN, MAWTS-1 course catalog.

Prerequisite. RQD-621.

Ordnance. N/A

External Syllabus Support. LAT approved MTR or training area.

LAT-531 2.0 E 1 KC-130 A

Goal. Continue LATI certification preparation phase with IUT flying in left seat.

Requirement. The IUT will brief, instruct, and debrief a low altitude flight on a low level route or closed course. Event description and requirements are the same as for TACNAV-321.

Prerequisite. LAT-530.

Performance Standard. Per NFM, KC-130 TACMAN, MAWTS-1 course catalog.

Ordnance. N/A

External Syllabus Support. LAT approved MTR or training area.

LAT-532 2.0 R E 2 KC-130 A

Goal. Complete LATI certification preparation phase with IUT flying dash-2 of a section in the left seat.

Requirement. The IUT will brief, instruct, and debrief a low altitude formation flight on a low level route or closed course. Event description and requirements are the same as TACNAV-421.

Performance Standard. Per NFM, KC-130 TACMAN, MAWTS-1 course catalog.

Prerequisite. LAT-531.

Ordnance. N/A

External Syllabus Support. LAT approved MTR or training area.

LAT-533 2.0 R E 1/2 KC-130 A

Goal. Qualify IUT as a LATI.

Requirement. The IUT will brief, instruct, and debrief a low altitude tactics event from the right seat demonstrating all maneuvers required in the LAT syllabus. The IUT shall also be evaluated on IR and RADAR threat reaction considerations, conduct of LAT and threat reaction training and all applicable rules of conduct governing LAT flight. Upon completion of this event, RQD-696 shall be logged and the IUT designated a LATI by the commanding officer.

Performance Standard. Per NFM, KC-130 TACMAN/NTTP, and MAWTS-1 course catalog.

Prerequisite. LAT-532.

Ordnance. N/A

External Syllabus Support. LAT approved MTR or training area.

7. Night System Instructor

a. Purpose. Qualify the pilot as an NSI.

b. General. The T&R Program Manual and the MAWTS-1 Course Catalog are germane. Night System Qualification, and completion of all NS Core Plus events is a prerequisite. The build-up phase may be developed and supervised by the Squadron NSI. Upon certification by MAWTS-1, the RQD-698 code shall be logged and the NSI designation may be assigned by the squadron commanding officer.

c. Crew requirements. Refer to the MAWTS-1 Course Catalog.

d. Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

e. Flight and Simulator Training. Refer to the MAWTS-1 Course Catalog.

8. Defensive Tactics Instructor (DEFTACTI).

a. Purpose. Qualify the pilot as a DEFTACI.

b. General. The T&R Program Manual and the MAWTS-1 course catalog are germane. Completion of the DEFTAC syllabus and LAT I designation are prerequisites. The build-up phase may be developed and supervised by the Squadron DEFTACI. Upon certification by MAWTS-1, RQD-697 shall be logged and the DEFTACI designation will be assigned by the squadron commanding officer.

c. Crew requirements. Refer to the MAWTS-1 Course Catalog.

d. Ground/Academic Training. Refer to the MAWTS-1 Course Catalog.

e. Flight Training. Refer to the MAWTS-1 Course Catalog.

9. Weapons and Tactics Instructor (WTI)

a. Purpose. Develop highly qualified pilots into effective unit tactics instructors and expose them to current Marine Corps tactical doctrine. Additionally, this stage is designed to increase knowledge and experience of the capabilities and associated tasks of the KC-130.

b. General. Tactics and techniques will be taught per the KC-130 Tactical Manual and the MAWTS-1 supplements. Only MAWTS-1 instructors shall instruct/qualify flights in this stage.

c. Flight Training. See the MAWTS-1 Course Catalog.

150. REQUIREMENTS, QUALIFICATIONS AND DESIGNATIONS (RQD)

1. General. To provide a vehicle for tracking codes associated with qualifications and designations. E-coded sorties are evaluation sorties. E-coded sorties in the 600-level phase may be logged in conjunction with any sortie that completes its stage. For example, RQD-686 may be flown in conjunction with TACNAV-224. Once the flight to attain the qualification/designation is complete, a letter from the squadron commanding officer awarding the qualification/designation shall be placed in the NATOPS and APR before that qualification/designation can be utilized.

2. TPC Preparation Stage

a. Purpose. Qualify the pilot as a Transport Plane Commander (TPC).

b. General. The TPC preparation syllabus is designed to prepare the pilot to command a KC-130 and crew in all aspects of flight.

(1) The Proficiency Review Flights (PRFs) (RQD-600 to RQD-602) will be flown to screen T2P's for upgrade. Each flight should be flown with a separate evaluator. Upon successful completion of RQD-602, the T2P shall complete the TPC Preparation Simulator syllabus.

(2) The TPC Preparation simulator syllabus (SRQD-603) introduces the pilot to multiple, compound emergency scenarios and emphasizes landing the aircraft safely under 1 and 2-engine-out situations. It also provides a comprehensive review of crucial aircraft systems and limitations. If a pilot attends USAF Aircraft Commander Qualification Course (ACQ), commanders may waive the simulator syllabus.

(3) Upon successful completion of the PRF and TPC Preparation Simulator syllabus, the TPC shall have met the perquisites for the TPC Route Evaluation (RQD-604) and TPC NATOPS Evaluation (RQD-685).

(4) The prerequisites to begin the TPC Upgrade Syllabus are completion of Core Advanced training, currency/flight time per NFM, and the specific requirements for TPC designation per OPNAVINST 3710.7_.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground/Academic Training. The pilot shall be familiar with all applicable OPNAV and NATOPS directives, with an emphasis on instrument and NATOPS emergency procedures.

e. Flight and Simulator Event Training (14 Events, 46.0 Hours)

RQD-600 3.0 E 1 KC-130 A

Goal. Screen for TPC designation.

Requirement. Review engine start malfunctions, ground normal and emergency procedures, stall series, GCA and ILS approach procedures, propeller malfunctions and emergency landings in all configurations.

Performance Standard. Per the NFM.

Prerequisite. RQD-684. APRB recommendation.

Ordnance. N/A

External Syllabus Support. N/A

RQD-601 3.0 E 1 KC-130 A (N)

Goal. Screen for TPC designation.

Requirement. Review ground fires, hydraulic malfunctions, three-engine circling approaches, no-flap landings, and aircraft limitations. Practice engine start malfunctions,

ground normal and emergency procedures, GCA and ILS approach procedures, propeller malfunctions and emergency landings in all configurations.

Performance Standard. Per the NFM.

Prerequisite. RQD-601.

Ordnance. N/A

External Syllabus Support. N/A

RQD-602 3.0 E 1 KC-130 A

Goal. Screen for TPC designation.

Requirement. Review engine and electrical malfunctions, unusual attitude recovery, and partial panel/no gyro approaches. Practice engine start malfunctions, ground normal and emergency procedures, GCA and ILS approach procedures, propeller malfunctions and emergency landings in all configurations.

Performance Standard. Per the NFM.

Prerequisite. RQD-601.

Ordnance. N/A

External Syllabus Support. N/A

RQD-603 27.0 E OFT/WST S

Goal. TPC Upgrade Preparation Simulator Syllabus.

Requirement. This is a tracking code to identify the completion of the TPC Upgrade Preparation Simulator Syllabus. The syllabus includes nine simulator events. See the TPC Upgrade Preparation Simulator Syllabus Guide for individual events descriptions and requirements.

Performance Standard. Per the NFM.

Prerequisite. RQD-602.

Ordnance. N/A

External Syllabus Support. CSI or ANI.

RQD-604 8.0 E 1 KC-130 A (N)

Goal. TPC NATOPS Route Check evaluation.

Requirement. This event shall be conducted on a long range overwater mission requiring the pilot to review ICAO operations, aircraft cruise and drift-down performance, overwater emergency procedures and cargo/passenger coordination. It is recommended the route evaluation be conducted during a multi-day mission to allow evaluation of the pilot’s ground duties and crew handling, to include

billeting, aircraft parking and servicing and diplomatic clearance coordination.

Performance Standard. Per the NFM and OPNAVINST 3710.7_.

Prerequisite. RQD-603.

Ordnance. N/A

External Syllabus Support. N/A

3. LAT Qualification (LATQ)

a. Purpose. Track LAT Qualification designation.

b. General. See course description and requirements in Core Basic and Core Advanced phase.

c. Simulator and Flight Training (0 Periods, 0.0 Hours)

RQD-620 0.0

Goal. Tracking code for Right Seat LAT qualification.

Prerequisite. TACNAV-221.

RQD-621 0.0

Goal. Tracking code for LAT qualification.

Prerequisite. TACNAV-322.

4. Section Leader Designation

a. Purpose. Prepare for and qualify the pilot as a section leader. During the workup stage for section leader, one flight should be of tactical nature (section TACNAV to AD, multi-ship AR, etc). The pilot shall review section formations, multi-plane AR formations, planned and inadvertent weather penetrations and section recovery techniques. One flight should be flown at night. It is recommended that the Tactical RAC Qualification (RQD-636) be conducted in conjunction with either RQD-630 or 631.

b. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

c. Ground Training. Review formation leader responsibilities outlined in the OPNAVINST 3710.7_ , KC-130 NFM, AAR Manual, and MAWTS-1 ASP air refueling courseware.

d. Flight Training (2 Flights, 6.0 Hours)

RQD-630 3.0 2 KC-130 A (N)

Goal. Train the pilot as a KC-130 section leader.

Requirement. This event shall be instructed by a designated section leader. This event should be flown as part of tactical mission (AAR preferred). The pilot shall conduct the formation leader brief, review formation start, taxi run-up, takeoff and recovery procedures under day, night and NVG conditions. Review proper management of all comm/nav

equipment as associated with formation flight and proper formation communications procedures.

Prerequisite. RQD-685, 100 flight hours as a TPC.

Performance Standard. Successfully plan, brief and lead a section formation evolution.

Ordnance. N/A

External Support Requirements. MOA or appropriate training area.

RQD-631 3.0 2 KC-130 A (N)

Goal. Certify the pilot as a KC-130 section leader.

Requirement. This event shall be evaluated by a designated division leader. Flight should be flown as a section. If RQD-630 did not include a tactical mission, then RQD-631 shall be flown in conjunction with a tactical mission. The pilot shall conduct the formation leader brief, review formation start, taxi run-up, takeoff and recovery procedures under day, night and NVG conditions. Review proper management of all comm/nav equipment as associated with formation flight and proper formation communications procedures. Upon completion of this event, the pilot may be designated a section leader by the commanding officer.

Performance Standard. The pilot shall demonstrate the flight leadership and maturity to successfully plan, brief lead a section of KC-130s.

Prerequisite. FORM-630.

Ordnance. N/A

External Support Requirements. MOA or appropriate training area.

5. Division Leader Designation.

a. Purpose. Prepare for and qualify the pilot as a division leader. During the workup stage for division leader, one flight should be a multi-plane AAR evolution. The pilot shall review multi-plane AAR formations, planned and inadvertent weather penetrations and division recovery techniques. One flight should be flown at night.

b. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

c. Ground Training. Review formation leader responsibilities outlined in the OPNAVINST 3710.7_ , KC-130 NFM, AAR Manual, and MAWTS-1 ASP air refueling courseware.

d. Flight Training (2 Flights, 6.0 Hours)

RQD-632 3.0 3+ KC-130 A (N)

Goal. Train the pilot as a KC-130 division leader.

Requirement. This event shall be instructed by a designated division leader. This event should be flown as part of a multi-plane AAR mission. The pilot shall conduct the formation leader brief, review formation start, taxi run-up, takeoff and recovery procedures under day, night and NVG conditions. Review proper management of all comm/nav equipment as associated with formation flight and proper formation communications procedures.

Performance Standard. Successfully plan, brief and lead a division formation evolution.

Prerequisite. RQD-631, RQD-636, 200 flight hours as a TPC.

Ordnance. N/A.

External Support Requirements. MOA or appropriate training area.

RQD-633 3.0 3+ KC-130 A (N)

Goal. Certify the pilot as a KC-130 division leader.

Requirement. This event shall be evaluated by a designated division leader. If RQD-632 did not include a tactical mission, then RQD-633 shall be flown in conjunction with a multi-plane AAR mission. The pilot shall conduct the formation leader brief, review formation start, taxi run-up, takeoff and recovery procedures under day, night and NVG conditions. Review proper management of all comm/nav equipment as associated with formation flight and proper formation communications procedures. Upon completion of this event, the pilot may be designated a section leader by the commanding officer.

Prerequisite. RQD-632.

Performance Standard. The pilot shall demonstrate the flight leadership and maturity to successfully plan, brief lead a division of KC-130s.

Ordnance. N/A

External Support Requirements. MOA or appropriate training area.

6. Tactical Refueling Area Commander (TACTICAL RAC) Designation

a. Purpose. Qualify the pilot as a Refueling Area Commander for multi-plane, static orbit air-to-air refueling operations.

b. General. A designated Tactical RAC shall be capable of commanding a KC-130 refueling cell on a static-orbit tanker track to include fuel management and control of receivers in and around the tanker cell. This qualification should be completed during the pilot's section leader training.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground Training. Review RAC responsibilities outlined in the OPNAVINST 3710.7_ , KC-130 NFM, AAR Manual, and MAWTS-1 ASP air refueling courseware.

e. Flight Training (1 Flight, 2.0 Hours)

RQD-636 3.0 R,E 2 KC-130 A (N)

Goal. Tactical RAC designation.

Requirement. Brief, conduct, and control a multi-tanker AAR mission. Discuss responsibilities of Flight Leader and Refueling Area Commander on a static orbit track. Focus should be on refueling formation integrity, receiver management, and fuel management for the entire flight.

Performance Standard. Accurately brief the tanker and receiver force on all applicable procedures per the NFM and the Air Refueling Manual.

Prerequisite. RQD-631, FORMAR-333.

Ordnance. N/A

External Syllabus Support. Receiver aircraft. MOA or appropriate training area.

7. Strategic Refueling Area Commander (Strategic RAC) Qualification

a. Purpose. Qualify the TPC as a Strategic RAC for long range refueling operations.

b. General. This designation qualifies the pilot to act as RAC for extended over-water tanker missions. A detailed knowledge of both tanker and receiver fuel management, Central Altitude Reservation Facility (CARF) coordination, long-range navigation techniques, flight lead/rendezvous controller responsibilities and international flight operations is required. Commanders should select only the most skilled and experienced aircraft commanders for this qualification.

c. Crew Requirements. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground Training. Review Strategic RAC responsibilities outlined in the AAR Manual appendix on KC-130 long-range over-water mission planning.

e. Flight Training (1 Event, 6.0 Hours)

RQD-637 6.0 R,E 1+ KC-130 A (N)

Goal. Strategic RAC designation.

Requirement. Flight shall be evaluated by a qualified Refueling Area Commander. Brief, conduct, and control a multi-tanker extended AR mission. Discuss responsibilities of Refueling Area Commander, flight leader, Rendezvous Controller, movement control, ALTRVs, abort criteria, hose factor, contingency planning, RAC functions, rendezvous control and pathfinding. Review radio procedures, NAVAID/RADAR/TCAS procedures, tanker/receiver management and emergency procedures related to AAR.

Performance Standard. Successfully plan, brief and execute a long-range AAR mission in support of FW/TR/RW receivers deployment operations.

Prerequisite. AR-493, RQD-633. APRB recommendation.

Ordnance. N/A

External Syllabus Support. FW/TR/RW receivers, CARF.

8. DEFTAC Qualification

RQD-661 0.0

Goal. Track DEFTAC Qualification.

Prerequisite. RQD-621, DEFTAC-462, 463, 464.

9. Familiarization

RQD-680 0.0

Goal. Track Left Seat FAM Qualification.

Prerequisite. FAM-300, 301, 302.

10. Instrument

a. Purpose. Conduct the pilot's annual Instrument evaluation.

b. General. The policy, requirements, and prerequisites concerning NATOPS instrument evaluations are contained in OPNAVINST 3710.7_, NFM, and the NIFM.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground Training/Evaluation. Ground training and evaluation shall be conducted per OPNAVINSTINST 3710.7_, NFM, and NIFM.

e. Flight Training (2 Flights, 4.0 Hours)

RQD-681 2.0 SC,R E KC-130 S/A (N)

Goal. Conduct a standard instrument flight evaluation.

Requirement. Designate pilot per OPNAVINST 3710.7_, NFM, and the IFM.

Performance Standard. Per OPNAVINST 3710.7_, NFM, and the IFM.

Prerequisite. Minimum experience per OPNAVINST 3710.7_.

External Syllabus Support. N/A.

RQD-682 2.0 SC,R E KC-130 S/A (N)

Goal. Conduct a special instrument flight evaluation.

Requirement. Per OPNAVINST 3710.7_, NFM, and the NIFM.

Performance Standard. Per OPNAVINST 3710.7_, NFM, and the NIFM.

Prerequisite. Minimum experience per OPNAVINST 3710.7.

External Syllabus Support. N/A.

11. NATOPS

a. Purpose. Qualify pilot as T3P, T2P.

b. General

(1) The T3P NATOPS evaluation shall be flown in conjunction with CK-190. A designated T3P may begin the Core Basic and Core advanced phases of instruction.

(2) The T2P NATOPS evaluation may be conducted when the T3P has completed the Core Basic phase and should be completed in the right seat.

c. Crew Requirements. Two pilots are required for simulator events. The minimum crew as defined by the NFM or NTTP is required for flight events.

d. Ground Training/Evaluation. Open and closed book NATOPS examinations and the specific requirements for T3P designation per OPNAVINST 3710.7_.

e. Flight Training (3 Flights, 6.0 Hours)

RQD-683 0.0 SC,R,E KC-130 A/S (N)

Goal. T3P NATOPS evaluation flight tracking code.

Prerequisite. CK-190.

RQD-684 2.0 SC,R,E KC-130 A/S (N)

Goal. Qualify the pilot as a Transport Second Pilot (T2P)

Requirement. The T2P check shall be instructed by an ANI/NI and shall be conducted with the pilot in the right seat. Emphasis shall be on right seat copilot duties to include comm/nav management, voice procedures, situational awareness and NATOPS/Instrument procedures. This sortie should be flown in conjunction with a tactical mission. For pilots who are already designated T2P, this event may be flown in the left seat.

Performance Standard. The pilot shall perform copilot duties in accordance with the NFM and TACMAN/NTTP.

Prerequisite. Core Basic phase complete, APRB recommendation.

RQD-685 2.0 SC,R,E 1 KC-130 A/S (N)

Goal. TPC NATOPS evaluation.

Requirement. Complete the TPC NATOPS evaluation IAW the NFM. A pilot's initial TPC NATOPS check shall be flown in the aircraft.

Performance Standard. Per the NFM and OPNAVINST 3710.7_.

Prerequisite. RQD-604.

Ordnance. N/A

External Syllabus Support. N/A

12. Night Systems Qualification (NSQ)

RQD-686 0.0

Goal. Track NS Qualification.

Prerequisite. SNS-203, NS-204, NS-205, TACNAV-223, TACNAV-224.

13. Post Maintenance Check Flight Pilot

a. Purpose. Qualify the TPC as a post maintenance check pilot.

b. Crew Requirements. NATOPS minimum crew.

c. Ground/Academic Training. Functional Check Flight Examination.

d. Flight Training (1 Flight, 2.0 Hours)

RQD-687 2.0 1 KC-130 A

Goal. Qualify the pilot as a PMCF pilot.

Requirement. The flight shall consist of an “A” profile functional check flight and be instructed by a qualified and proficient FCF pilot. For tracking purposes, copilots may also log this code.

Performance Standard. Satisfactorily execute procedures per the NFM, OPNAVINST 3710.7_, and OPNNAVINST 4790.2_.

14. Instructor Tracking Codes.

a. Purpose. Provide tracking codes for Instructor Designations.

RQD-688 0.0

Goal. Track FAM/INST Stage Instructor Designation.

Prerequisite. FAM-504.

RQD-689 0.0

Goal. Track AAR Stage Instructor Designation

Prerequisite. AR-511.

RQD-690 0.0

Goal. Track TACNAV Stage Instructor Designation.

Prerequisite. TACNAV-513.

RQD-691 0.0

Goal. Track FORM Stage Instructor Designation.

Prerequisite. FORM-515.

RQD-692 0.0

Goal. Track AD Stage Instructor Designation.

Prerequisite. AD-517.

RQD-693 0.0

Goal. Track ALZ Stage Instructor Designation.

Prerequisite. ALZ-519.

RQD-694 0.0

Goal. Track T&R Instructor Designation.

Prerequisite. NI-590.

RQD-695 0.0

Goal. Track NATOPS Instructor Designation.

Prerequisite. NI-591.

RQD-696 0.0

Goal. Track LAT Instructor Designation.

Prerequisite. LAT-533.

RQD-697 0.0

Goal. Track DEFTAC Instructor Designation.

Prerequisite. See MAWTS-1 Course Catalog; DEFTAC-543.

RQD-698 0.0

Goal. Track Night Systems Instructor Designation.

Prerequisite. See MAWTS-1 Course Catalog; NSI-553.

RQD-699 0.0

Goal. Track Weapons and Tactics Instructor Designation.

Prerequisite. See MAWTS-1 Course Catalog; WTI-592.

160. EXPENDABLE ORDNANCE REQUIREMENTS

BASIC/TRANSITION/CONVERSION/REFRESHER

ORDNANCE	100 SERIES	200 SERIES	300 SERIES	400 SERIES	IUT	ANNUAL
Chaff	N/A	N/A	5000	600	600	6200
Flare	N/A	5000	5000	600	600	11200
LUU-2A/B, B/B, LUU-19	N/A	N/A	N/A	150	N/A	150

161. SYLLABUS MATRIX

CORE SKILL INTRODUCTION

STAGE	CODE	HRS	SIM HRS	REFLT	CRP	SIM CRP	SC	R	COND	REMARKS
SFAM	001		4.0	*		.5				
	002		4.0	*		.5				
	003		4.0	*		.5				
	004		4.0	*		.5				
	005		4.0	*		1.0	X	X		
	006		4.0	*		.5				
	007		4.0	*		.5	X			
SINST	008		4.0	*		.5	X			
	009		4.0	*		.5	X			
	010		4.0	*		.5	X			
	011		4.0	*		.5	X			
	012		4.0	*		.5	X	X		
	013		4.0	*		.5	X	X		
	014		4.0	*		1.0	X	X		
SPMFC	016		2.0	*		.5				
FAM	100	3.0		*	1.0					
INST	101	3.0		*	1.0		X	X		
	102	3.0		*	1.0				(N)	
	103	3.0		*	1.0		X	X	(N)	
	104	3.0		*	1.0				(N)	
	105	3.0		*	1.0		X	X		
	106	3.0		*	1.0					
	107	3.0		*	1.0		X	X		
	108	3.0		*	1.0				(N)	
	109	3.0		*	2.0		X	X	(N)	
SAR	015		4.0	*		.5				
AR	110	3.0		*	1.0					
	111	3.0		*	1.0				(N)	
	112	3.0		*	2.0				(N)	
TACNAV	120	2.0		*	2.0					
FORM	130	2.0		*	1.0					2 A/C
	131	2.0		*	2.0					2 A/C
LRNAV	150	8.0		*	1.0				(N)	
	151	8.0		*	1.0				(N)	
CK	190	3.0		365	4.0		X	X	(N)	E-CODED
CNATRA					**25.0**					
TOTAL 100	**35**	**64.0**	**62.0**		**26.0**	**9.0**				
					35.0					

CORE SKILL BASIC

STAGE	CODE	HRS	SIM HRS	REFLT	CRP	SIM CRP	SC	R	COND	REMARKS
SFAM	200		3.0	*		.5	X			
FAM	201	2.0		365	.5		X			
	202	2.0		365	.5		X	X	N	UNAIDED
SNS	203		3.0	*		.5	X	X	NS	
NS	204	2.0		365	.5		X		NS	HLL
	205	2.0		180	.5		X	X	NS	LLL
AR	210	4.0		365	1.0					
	211	4.0		365	.5		X		N (NS)	NVG OPT
	212	3.0		180	.5					DAY
	213	3.0		180	.5		X		NS	HLL OR LLL
TACNAV	220	2.0		365	.5					
	221	2.0		180	.5		X			R/S LAT
STACNAV	222		2.0	*		.5	X		NS	
TACNAV	223	2.0		365	.5				NS	HLL
	224	2.0		180	1.0		X		NS	LLL
SFORM	230		2.0	*		.5				
FORM	231	2.0		365	.5					
	232	2.0		365	.5		X		NS	HLL OR LLL
SAD	240		2.0	*		.5				
AD	241	2.0		365	.5					
	242	2.0		365	.5		X		NS	HLL OR LLL
LRNAV	250	8.0		365	.5		X		(N)	
STHRXI	260		2.0	*		.5	X	X		
THRXI	261	2.0		365	.5		X		(N)(NS)	IR THREAT
SALZ	270		3.0	*		.5	X			
ALZ	271	3.0		180	.5		X			
	272	3.0		180	.5		X		NS	HLL OR LLL
RGR	274	2.0		365	.5		X	X	(N)(NS)	
TOTAL 200	**28**	**40.0**	**17.0**		**11.5**	**3.5**				
					15.0					

CORE SKILL ADVANCED

STAGE	CODE	HRS	SIM HRS	REFLT	CRP	SIM CRP	SC	R	COND	REMARKS
SFAM	300		3.0	*		.5	X			
FAM	301	2.0		365	.5		X	X		
	302	2.0		365	.5		X	X	N	UNAIDED
NS	303	2.0		180	1.0		X		NS	HLL
AR	311	3.0		365	1.0		X	X	(N)(NS)	NVG OPT
	312	3.0		180	1.0			X		RWAR
	313	3.0		180	1.0				NS	HLL OR LLL
TACNAV	320	2.0		365	.5		X			LLNAV
	321	2.0		180	1.0		X			LAT
	322	2.0		180	1.0		X	X		LAT QUAL
	323	2.0		365	1.0		X		NS	HLL
	324	2.0		180	1.0		X	X	NS	LLL
FORM	330	2.0		365	1.0		X	X		2AC
	331	2.0		365	1.0				NS	2AC,HLL/LLL
	332	4.0		365	1.0				(N)(NS)	DIV,NVG OPT
FORMAR	333	4.0		365	1.0				(N)(NS)	AAR,NVG OPT
AD	340	2.0		365	.5		X	X		
	341	2.0		365	1.0		X		NS	HLL OR LLL
STHRXR	360		3.0	*		.5	X			
THRXR	361	2.0		365	1.0		X	X		RADAR THREAT
ALZ	370	2.0		180	1.0		X	X		
	371	2.0		180	1.0		X		NS	HLL
	372	2.0		180	1.0		X		NS	LLL
TOTAL 300	**23**	**46.0**	**6.0**		**19.0**	**1.0**				
					20.0					

CORE PLUS

STAGE	CODE	HRS	SIM HRS	REFLT	CRP	SIM CRP	SC	R	COND	REMARKS
AR	413	3.0		365	.5		X		N	UNAIDED RWAR
	493	6.0		730	.5				(N)	LRAR
TACNAV	420	2.0		365	.5					SEC LLNAV
	421	2.0		180	.2					SECTION LAT
	422	2.0		365	.3		X		N	UNAIDED LLNAV
	423	2.0		180	.5		X	X	NS	NVG SEC LLNAV
FORM	430	2.0		180	.5				N	UNAIDED
AD	440	2.0		365	.5		X		N	UNAIDED
	442	2.0		365	.1				(N)(NS)	HIGH ALT AD
	444	2.0		*	.1				N (NS)	NVG OPT, BI
DEFTAC	462	2.0		180	.1					1V1
	463	2.0		180	.1					1V2
	464	2.0		180	.3		X	X		DEFTAC QUAL
ALZ	470	2.0		180	.3				(N)	UNIMPROVED
	471	2.0		180	.5		X	X	N	UNAIDED
TOTAL	**15**	**35.0**	**0.0**		**5.0**					

INSTRUCTOR TRAINING

STAGE	CODE	HRS	SIM HRS	NOTES All events are E coded.
SFAM	500		2.0	FAM/INST Stage Instructor work-up
	501		2.0	FAM/INST Stage Instructor work-up
FAM	502	2.0		FAM/INST Stage Instructor work-up
INST	503	2.0		FAM/INST Stage Instructor work-up
	504	3.0		FAM/INST Stage Instructor Qualification
AR	510	3.0		AAR Stage Instructor work-up
	511	3.0		AAR Stage Instructor Qualification
TACNAV	512	2.0		TACNAV Stage Instructor work-up
	513	2.0		TACNAV Stage Instructor Qualification
FORM	514	2.0		FORM Stage Instructor work-up
	515	2.0		FORM Stage Instructor Qualification
AD	516	2.0		AD Stage Instructor work-up
	517	2.0		AD Stage Instructor Qualification
ALZ	518	2.0		ALZ Stage Instructor work-up
	519	2.0		ALZ Stage Instructor Qualification
TR	520	3.0		T&R Instructor Qualification
LATI	530	2.0		LAT Instructor work-up, right seat
	531	2.0		LAT Instructor work-up, left seat
	532	2.0		LAT Instructor work-up, dash 2, Refresher
	533	2.0		LAT Instructor Qualification, Refresher
DEFTACI	540	2.0		See MAWTS-1 Course Catalog
	541	2.0		
	542	2.0		
	543	2.0		
NSI	550	2.0		See MAWTS-1 Course Catalog
	551	2.0		
	552	2.0		
	553	2.0		
NATOPS	590		3.0	NATOPS/Asst NATOPS Instructor work-up
	591	3.0		NATOPS/Asst NATOPS Instructor Qualification
WTI	592			See MAWTS-1 Course Catalog

REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS

STAGE	CODE	HRS	TRACK	A/C OR SIM	NOTES – All events E coded
RQD	600	3.0		A	PROFICIENCY REVIEW FLIGHT
RQD	601	3.0		A	PROFICIENCY REVIEW FLIGHT
RQD	602	3.0		A	PROFICIENCY REVIEW FLIGHT
RQD	603	27.0	X	S	TPC PREPARATION SYLLABUS
RQD	604	8.0		A	NATOPS ROUTE EVALUATION
RQD	620		X		RIGHT SEAT LAT QUALIFICATION
RQD	621		X		LAT QUALIFICATION
RQD	630	3.0		A	SECTION LEADER PRACTICE
RQD	631	3.0		A	SECTION LEADER QUALIFICATION
RQD	632	3.0		A	DIVISION LEADER PRACTICE
RQD	633	3.0		A	DIVISION LEADER QUALIFICATION
RQD	636	3.0		A	TACTICAL REFUELING AREA COMMANDER, R-CODED
RQD	637	6.0		A	STRATEGIC REFUELING AREA COMMANDER, R-CODED
RQD	661		X		DEFTAC QUALIFICATION
RQD	680		X		LEFT SEAT QUALIFICATION
RQD	681	2.0		S/A	STANDARD INSTRUMENT REFLY 365 SC R
RQD	682	2.0		S/A	SPECIAL INSTRUMENT REFLY 365 SC R
RQD	683		X		TRANSPORT THIRD PILOT (T3P) REFLY 365 SC R
RQD	684	2.0		A/S	TRANSPORT SECOND PILOT (T2P) REFLY 365 SC R
RQD	685	2.0		A/S	TRANSPORT PLANE COMMANDER (TPC) REFLY 365 SC R
RQD	686		X		NIGHT SYSTEMS QUALIFICATION (NSQ)
RQD	687	2.0		A	PMCF PILOT
RQD	688		X		FAMILIARIZATION/INSTRUMENT INSTRUCTOR
RQD	689		X		AIR-TO-AIR REFUELING INSTRUCTOR
RQD	690		X		TACTICAL NAVIGATION INSTRUCTOR
RQD	691		X		FORMATION INSTRUCTOR
RQD	692		X		AIR DELIVERY INSTRUCTOR
RQD	693		X		ASSAULT LANDING ZONE INSTRUCTOR
RQD	694		X		T&R INSTRUCTOR
RQD	695		X		NATOPS INSTRUCTOR
RQD	696		X		LOW ALTITUDE TACTICS INSTRUCTOR
RQD	697		X		DEFTAC INSTRUCTOR
RQD	698		X		NIGHT SYSTEMS INSTRUCTOR
RQD	699		X		WEAPONS AND TACTICS INSTRUCTOR

162. T&R CHAINING TABLES. Event chaining allows for the completion of more complex and/or advanced events using the same skills to update proficiency status of events. Only events in a sequence entailing demonstration of equivalent skills shall be chained.

a. When a T&R event is logged, the proficiency dates of other T&R events (usually lower in number) may be updated. The T&R code that is logged is known as the "chaining code," and the updated codes are "chained codes." Chained codes are not always updated when a chaining code is logged.

b. Conditional Chaining. The following environmental conditions further specify which T&R codes are chain-updated.

(1) Night Optional. Chained codes annotated with parentheses around them, e.g. (200), are only chain-updated if the chaining code is flown at night.

(2) Night Systems Optional. Chained codes annotated with parentheses and NS after them, e.g. (200 NS), are only chain-updated if the chaining code is flown using night systems.

(3) Light Level Optional. Chained codes annotated with parentheses and HLL after them, e.g. (200 HLL), are only chain-updated if the chaining code is flown using night systems during a high light level period. Chained codes annotated with parentheses and LLL after them, e.g. (200 LLL), are only chain-updated if the chaining code is flown using night systems during a low light level period.

c. Syllabus Event Conversion Matrix. The matrix is used to convert Stage and Training Code events from the previous KC-130FRT T&R Manual to the Stage and Training Codes contained within this Manual. The automated flight scheduling tool, Squadron Assistance Risk Assessment (SARA), will automatically convert and update the previous Stage and Training Codes contained under the Old Primary column to the New Stage and Training Codes. There is a possibility that more than one old Stage and Training Code could map to the New Stage and Training Codes. Therefore, the column "Old Secondary" was established. Due to software shortcomings in the SARA program, SARA can only map one old code to the new code. It is the responsibility of the local SARA administrator to manually map "Old Secondary" codes to the new Stage and Training Codes.

EVENT UPDATE CHAINING

STAGE	FLIGHT	FLIGHT UPDATED
SFAM	200	
FAM	201	
FAM	202	201
SNS	203	
NS	204	201
NS	205	204, 201
AR	210	201
AR	211	210, 201, (204 NS), (205 LLL), (202 NITE)
AR	212	201
AR	213	212, 201, (204 NS), (205 LLL)
TACNAV	220	201
TACNAV	221	220, 201
STACNAV	222	
TACNAV	223	220, 204, 201
TACNAV	224	220, 205, 201
SFORM	230	
FORM	231	201
FORM	232	231, 201, (204 NS), (205 LLL)
SAD	240	
AD	241	201
AD	242	241, 201, (204 NS), (205 LLL)
LRNAV	250	201, (202 NITE)
STHRXI	260	
THRXI	261	
SALZ	270	
ALZ	271	201
ALZ	272	271, 201, (204 NS), (205 LLL)
RGR	274	
SFAM	300	
FAM	301	201
FAM	302	301, 202, 201
NS	303	301, 201, (204 NS), (205 LLL)
AR	311	301, 210, 201, (303, 211, 204 NS), (205 LLL), (302, 211, 202 NITE)
AR	312	301, 212, 201
AR	313	312, 303, 301, 213, 212, 201, (204 NS), (205 LLL)
TACNAV	320	301, 220, 201
TACNAV	321	320, 301, 221, 220, 201
TACNAV	322	321, 320, 301, 221, 220, 201
TACNAV	323	320, 303, 301, 223, 220, 204, 201
TACNAV	324	323, 320, 303, 301, 224, 220, 205, 201
FORM	330	301, 231, 201
FORM	331	330, 303, 301, 201, (232, 231 204 NS), (205 LLL)
FORM	332	330, 301, 231, 201, (331, 303, 232, 204 NS), (205 LLL)
FORM	333	330, 301, 231, 201, (331, 303, 232, 204 NS), (205 LLL), (332 DIV)
AD	340	301, 241, 201
AD	341	340, 303, 301, 242, 241, 201, (204 NS), (205 LLL)
STHRXR	360	
THRXR	361	360, 261
ALZ	370	301, 271, 201
ALZ	371	370, 303, 301, 272, 271, 204, 201
ALZ	372	371, 370, 303, 301, 272, 271, 205, 201
AR	413	313, 312, 213, 212
AR	493	250, 301, 201, (DIV/SEC/RW/FW CODES MUST ALSO BE LOGGED)

TACNAV	420	330, 320, 301, 220, 201
TACNAV	421	420, 330, 322, 321, 320, 301, 231, 221, 201
TACNAV	422	324, 323, 320, 301, 220, 201
TACNAV	423	420, 331, 320, 220, 301, 201 (323, 303, 224, 204 NS), (324, 205 LLL)
FORM	430	331, 330, 232, 231, 302, 301, 202, 201, (322 DIV)
AD	440	341, 340, 301, 242, 241, 202, 201
AD	442	
AD	444	
DEFTAC	462	
DEFTAC	463	462, 301, 201
DEFTAC	464	463, 462, 301, 201
ALZ	470	370, 301, 271, 201, (371, 303, 272, 204 NS), (372, 205 LLL), (471 NITE)
ALZ	471	370, 301, 271, 201, (371, 303, 272, 204 NS), (372, 205 LLL), (471 NITE)
RQD	682	681
	684	683
	685	683,684

Syllabus Event Conversion Matrix		
STAGE AND TRAINING CODE – NEW	**STAGE AND TRAINING CODE – OLD PRIMARY**	**STAGE AND TRAINING CODE – OLD SECONDARY**
SFAM-001	SFAM-001	
SFAM-002	SFAM-002	
SFAM-003	SFAM-003	
SFAM-004	SFAM-004	
SFAM-005	SFAM-005	
SFAM-006	SFAM-006	
SFAM-007	SFAM-007	
SINST-008	SINST-008	
SINST-009	SINST-009	
SINST-010	SINST-010	
SINST-011	SINST-011	
SINST-012	SINST-012	
SINST-013	SINST-013	
SINST-014	SINST-015	
SPMCF-016	SPMCP-019	
FAM-100	FAM-100	
INST-101	INST-101	
INST-102	INST-102	
INST-103	INST-103	
INST-104	INST-104	
INST-105	INST-105	
INST-106	INST-106	
INST-107	INST-107	
INST-108	INST-108	
INST-109	INST-109	
SAR-015	SAR-016	
AR-110	AR-110	
AR-111	AR-112	
AR-112	AAR-113	
TACNAV-120	LLNAV-120	
FORM-130	FORM-130	
FORM-131	FORM-131	
LRNAV-150	LRNAV-150	
LRNAV-151	LRNAV-151	
CK-190	CK-190	

STAGE AND TRAINING CODE – NEW	STAGE AND TRAINING CODE – OLD PRIMARY	STAGE AND TRAINING CODE – OLD SECONDARY
SFAM-200	SFAM-200	
FAM-201	FAM-200	
FAM-202	FAM-201	
SNS-203	SNVG-601	602
NS-204	NVG-601	
NS-205	NVG-601	
AR-210	AR-210	
AR-211	NVG-211	610
AR-212	AR-212	
AR-213	NVG-611	
TACNAV-220	LLNAV-220	
TACNAV-221	LAT-420	
STACNAV-222		
TACNAV-223	NVG-620	
TACNAV-224	NVG-621	
SFORM-230	SFORM-230	
FORM-231	FORM-230	
FORM-232	NVG-630	
SAD-240	SAD-240	
AD-241	AD-240	241,340
AD-242	NVG-640	
LRNAV-250	LRNAV-251	
STHRXI-260	SASE-360	460
THRXI-261	ASE-360	660
SALZ-270	STLZ-270	
ALZ-271	TLZ-270	
ALZ-272	NVG-670	671
RGR-274	RGR-273	274
SFAM-300	SFAM-200	
FAM-301	FAM-200	
FAM-302	FAM-201	
NS-303	NVG-601	
AR-311	NVG-211	610
AR-312	AR-212	333
AR-313	NVG-611	
TACNAV-320	LLNAV-220	
TACNAV-321	LAT-421	
TACNAV-322	LAT-422	
TACNAV-323	NVG-620	
TACNAV-324	NVG-621	
FORM-330	FROM-230	
FORM-331	NVG-630	
FORM-332	FORM-233	234,332
FORMAR-333	AR-312	
AD-340	AD-240	241,340,343
AD-341	NVG-640	
STHRXR-360	SASE-360	460
THRXR-361	ASE-360	660
ALZ-370	TLZ-270	
ALZ-371	NVG-670	
ALZ-372	NVG-672	

STAGE AND TRAINING CODE – NEW	STAGE AND TRAINING CODE – OLD PRIMARY	STAGE AND TRAINING CODE – OLD SECONDARY
AR-413	AR-213	
AR-493		
TACNAV-420	LLFORM-330	
TACNAV-421	LAT-422	
TACNAV-422	LLNAV-221	
TACNAV-423	LLFORM-231	
FORM-430	FORM-231	232,331
AD-440	AD-341	
AD-442	AD-342	
AD-444	AD-344	
DEFTAC-462	DEFTAC-462	
DEFTAC-463	DEFTAC-463	
DEFTAC-464	DEFTAC-463	
ALZ-470	ALZ-370	672
ALZ-471	TLZ-271	371
SFAM-500	SFAM-500	
SFAM-501	SFAM-500	
FAM-502	FAM-500	
INST-503	INST-501	
INST-504	INST-502	
AR-510	AR-510	
AR-511	AR-511	
TACNAV-512	NAV-520	
TACNAV-513	NAV-521	
FORM-514	FORM-530	
FORM-515	FORM-531	
AD-516	AD-540	
AD-517	AD-541	
ALZ-518	TLZ-570	
ALZ-519	TLZ-571	
TR-520		
LATI-530	LAT-532	
LATI-531	LAT-533	
LATI-532	LAT-534	
LATI-533	LAT-591	
DEFTACI-540	DEFTAC-592	
DEFTACI-541	DEFTAC-592	
DEFTACI-542	DEFTAC-592	
DEFTACI-543	DEFTAC-592	
NSI-550	NVG-593	
NSI-551	NVG-593	
NSI-552	NVG-593	
NSI-553	NVG-593	
NATOPS-590	NI-590	
NATOPS-591	NI-590	
WTI-592	WTI-594	

STAGE AND TRAINING CODE – NEW	STAGE AND TRAINING CODE – OLD PRIMARY	STAGE AND TRAINING CODE – OLD SECONDARY
RQD-600	TPC-390	
RQD-601	TPC-391	
RQD-602	TPC-392	
RQD-603	STPC-398	
RQD-604	TPC-393	
RQD-620	LAT-420	
RQD-621	LAT-421	
RQD-630	FORM-395	
RQD-631	FORM-395	
RQD-632	FORM-396	
RQD-633	FORM-396	
RQD-636		
RQD-637	RAC-493	
RQD-661	DEFTAC-463	
RQD-680	FAM-201	
RQD-681	INST-690	
RQD-682	INST-691	
RQD-683	CH-190	
RQD-684	CH-290	
RQD-685	TPC-394	
RQD-686	NVG-602	
RQD-687	FCF-600	
RQD-688	INST-502	
RQD-689	AR-511	
RQD-690	NAV-521	
RQD-691	FROM-531	
RQD-692	AD-541	
RQD-693	TLZ-571	
RQD-694		
RQD-695	NATOPS-590	
RQD-696	LAT-591	
RQD-697	DEFTAC-592	
RQD-698	NVG-593	
RQD-699	WTI-594	